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PROCEEDINGS OF THE SIXTH ANNUAL MEETING OF THE NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS, SEPT. 23-26, 1936

GENERAL STATEMENT

The Sixth Annual Meeting of the National Association of State Aviation Officials was held at Newark, New Jersey, and Hartford, Connecticut, September 23-26, 1936, with official representatives from the Bureau of Air Commerce of the Department of Commerce and some thirty states.

The papers which follow were presented at the sessions on Thursday, Friday and Saturday at Hartford, in accordance with the program as printed on the following page. Addresses of a purely informal nature have not been included in this report of the Proceedings. There are included the reports from standing committees, resolutions adopted at the meeting, and the list of officers of the Association for 1936-37.

FRED D. FAGG, JR., Secretary-Treasurer,
National Association of State Aviation Officials.

OFFICIAL PROGRAM—SIXTH ANNUAL MEETING
of the
NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

Newark, New Jersey - Hartford, Connecticut
September 23, 24, 25, 26, 1936

NEWARK, NEW JERSEY

Wednesday (September 23rd)

12 Noon — Assembly of delegates at Administration Building, Newark Airport. Transportation furnished to Paterson, N. J.

1:00 P. M. — Inspection tour of the Wright Aeronautical Corporation plant at Paterson with complimentary luncheon.

4:30 P. M. — Return to airport for short program as guests of City of Newark and explanation of traffic control system. Program in charge of Richard Aldworth, Manager, Newark Airport.

6:30 P. M. — Leave for New York or Hartford. Evening free.

HARTFORD, CONNECTICUT—HOTEL BOND

Thursday (September 24th)

9:00 A. M. — Registration.

3:00 P. M. — Inspection of United Aircraft plants at East Hartford.

6:00 P. M. — Opening Dinner.

Addresses of Welcome:

HON. CHARLES L. MORRIS, Commissioner of Aeronautics, State of Connecticut.

HON. T. FRANK HAYES, Lieutenant Governor, State of Connecticut.

HON. JOHN F. MACKEY, President, Board of Aldermen and Acting Mayor, City of Hartford.

MR. C. B. WHITTELSEY, Executive Secretary, Chamber of Commerce, Hartford, Connecticut.

MR. MARTINO, President, Hartford Aviation Commission.

MR. EUGENE E. WILSON, Senior Vice-President, United Aircraft Corporation.

President's Address: HON. FRED B. SHERIFF, Commissioner of Aeronautics, State of Montana.

Secretary-Treasurer's Report: PROF. FRED D. FAGG, JR., Member Illinois Aeronautics Commission.

Report of Legal Counsel: HON. GEORGE B. LOGAN, of Missouri.

Friday (September 25th)

9:30 A. M. — Election of Officers.

10:30 A. M. — "Aviation Insurance," HON. J. E. HOSKINS, Chairman, Aviation Committee, Actuarial Society of America.

11:00 A. M. — Informal Address: HON. CHARLES F. HORNER, President, National Aeronautic Association.

"The Work of the Copeland Committee," COLONEL HAROLD

E. HARTNEY, Technical Adviser, U. S. Senate Aircraft Investigation Committee.

"Over-Water Flying and Seaplane Bases," MR. DONALD D. COOKE, Bureau of Air Commerce.

12:00 Noon Informal Luncheon.

Informal Addresses: DR. WILLIAM B. SMITH, Chief Flight Surgeon, Connecticut Aeronautics Department; MR. G. B. BUTTERFIELD, Hartford Accident and Indemnity Company.

"Problems Confronting the Airlines," COLONEL EDGAR S. GORRELL, President, Air Transport Association of America.

2:00 P. M. "Airports" (A Round Table Discussion).

Discussion Leaders: HON. JOHN S. WYNNE, Chief, Airport Marking and Mapping Section, Bureau of Air Commerce; COLONEL W. SUMPTER SMITH, Principal Aeronautical Engineer, Federal Works Progress Administration.

4:00 P. M. Reports from N. A. S. A. O. Standing Committees on:

1. Flight Strips.
2. Compulsory Wheel Brakes.
3. Airport Rating.
4. Federal-State Aid for Airports.

Saturday (September 26th)

9:30 A. M. "Federal and State Cooperation" (A Round Table Discussion).

Discussion Leaders: HON. EUGENE L. VIDAL, Director of Air Commerce; COLONEL J. CARROLL CONE, Assistant Director of Air Commerce for Air Regulation; HON. RICHARD S. BOUTELLE, State Coordinator, Bureau of Air Commerce; and HON. FRED L. SMITH, Director of Aeronautics, State of Ohio.

11:30 A. M. "Probable Aircraft Trends in the Near Future," HON. JOHN H. GEISSE, Chief, Development Section, Bureau of Air Commerce.

12:00 Noon Informal Luncheon.

Informal Address: MR. JOHN F. VICTORY, Secretary, National Advisory Committee for Aeronautics.

"The Federal Aviation Policy," HON. EDWARD P. WARNER, Consulting Aircraft Engineer.

"The Interstate Commerce Commission: Its Function in Air Transportation," HON. NORMAN B. HALEY, Director, Bureau of Air Mail, Interstate Commerce Commission.

2:00 P. M. Reports of Committees.

4:00 P. M. Miscellaneous Business.

6:30 P. M. Annual Banquet. *Toastmaster:* HON. CLARENCE T. HUBBARD, Director, Hartford Chamber of Commerce.

Addresses: HON. WILBUR L. CROSS, Governor of the State of Connecticut; HON. GILL ROBB WILSON, Director, Department of Aviation, State of New Jersey.

"Trends in Aviation Development," HON. J. MONROE JOHNSON, Assistant Secretary of Commerce.

THE N. A. S. A. O. YEAR IN REVIEW*

FRED B. SHERIFF†

It has become the custom for the President of the National Association of State Aviation Officials to bring together at the end of his year's work his observations on the state of the Nation, so to speak, so far as our interest in aeronautics is concerned. You will notice that we are omitting entirely any mention of military aeronautics.

We feel that we are in a position to analyze quite wide-spread views on the present status of aviation in this country, and probably conclude therefrom certain recommendations that should be timely. The past year has demonstrated that this Association occupies a unique position, which makes it possible for us to supply a certain brand of helpfulness and leadership which no other organization is in a position to render. If we are to maintain this position, we must at all times be on the look-out to remain entirely non-political, and so far as other agencies are concerned we must cooperate without being adversely critical.

It is your speaker's opinion that there runs all the way through the flying game a "common denominator" of genuine interest that has to do, first of all, with the advancement of aviation, and I have found at times that misunderstandings have been caused because some individual or group was a little bit too zealous in trying to further only his branch of the industry as he saw it. It behooves us, therefore, to try to keep both feet on the ground, to be studious and fair-minded, and to set an example for conservativeness and extreme sanity, if possible. There is no substitute for common sense.

From our point of view there are several high lights in the aviation picture, which I should like to dwell on rather briefly. First, is the problem of "Safety in Air," which has recently received an unusual amount of attention, and I am sure that this will be all for the good, although at first thought, it does not appear that the findings of the Copeland Committee have really added

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* Address delivered at the Sixth Annual Meeting of the National Association of State Aviation Officials, Hartford, Connecticut, September 24, 1936.

† President, National Association of State Aviation Officials, and Commissioner of Aeronautics, State of Montana.

anything to the recommendations contained in the report of the Federal Aviation Commission of January, 1935.

The damaging consequences of political interference that have come to light, both national and in the various states, are something that must also be at least touched upon.

Second, I am going to refer briefly to the WPA airport program, which has been a great help to the Nation in the development of ground facilities, but at the same time has been only a partial success.

Third, the development of traffic on the airlines and the prospect of an enormous expansion in miscellaneous flying, I am convinced, are going to give rise to traffic control problems, which certainly will be difficult to handle. We can be proud of the fact that the Bureau of Air Commerce has made a very commendable start in the right direction, as regards traffic control.

Only a superficial study of the three high lights that I have mentioned will emphasize the fact that the assistance of the states is going to be badly needed in all of these matters in order to round out the preparations for fostering aeronautics and also providing necessary regulation. During the past winter a few more states have adopted a state code similar to the Uniform State Aeronautical Regulatory Act which we adopted in Cheyenne in 1934, but there are still a number of states that do not have the right kind of legislative background for their aeronautical set-up.

On the matter of Safety in Air, I wish to elaborate. The crux of the whole thing seems to depend upon the advisability of establishing both at Washington and for the various states, commissions on aeronautics, made up of technicians who cannot be subjected to the hazards of politics. On this question we entertain absolutely no doubt, and feel that ninety-nine per cent of the well-informed people in aviation hold with us the same belief. We are of the opinion that the recommendations of the Federal Aviation Commission as outlined in their report in January, 1935, have not been improved upon. The Commission's report recommended that the nation should have an Air Commerce Commission appointed by the President with broad advisory powers, and that such commission should hold office for a long period of years, to be non-political in nature, and made up of the best technicians available. The Hearings of the Copeland Committee, it seems, have merely served to emphasize the sanity of the conclusions of the Federal Aviation Commission. I cannot admit that the Copeland Committee has done any very great work outside of probably

educating a number of Senators and Congressmen to the effect that they were not as air-minded as they thought they were, and that aviation is very much of a specialized business that should be treated as such. These hearings did make it possible to provide the Bureau of Air Commerce with a larger budget than it had before, but I cannot see where they have brought to light any particular need of the industry that would not have been taken care of if the recommendations of the Federal Aviation Commission had been carried out. To some extent, the hearings have confused the issue by leaving the impression that a laxity has existed at times either on the part of airlines or with the Bureau of Air Commerce employees. Possibly a little laxity has existed, but it is nothing to compare with the laxity of a Congress that has not been properly informed on the highly specialized nature of this industry. Congress cannot hope to be properly informed so long as it attempts to function without even having special committees on aviation in both the House and Senate. Ever since the cancellation of air mail contracts, the Administration has repeatedly demonstrated that aviation in this country has outgrown its understanding, and I am sorry to say that by the same token a similar condition exists in many of the states.

Your President is rather impressed with the fact that the proceedings of these congressional hearings recently referred to, which cover approximately 1,350 pages of fine print, seem to contain only a very few pages regarding the problem of improving safety in the air so far as miscellaneous flying is concerned. When we stop to realize that there are about 40 miscellaneous pilots to one airline pilot, that accidents in miscellaneous flying occur about ten times as often as accidents in scheduled airline operations, and that there are twelve times as many casualties in miscellaneous operation, I cannot for the life of me understand why Senator Copeland's Committee did not spend more time on the subject of miscellaneous flying. While the airlines are expecting to handle a total of approximately a million passengers in 1936, we find that miscellaneous pilots have already carried 1,287,000 passengers in 1935. As evidence of the fact that this large number of passengers has been handled with only a part of the caution and thoroughness exercised in a scheduled airline operation, we are confronted with the condition that about twelve times as many people are being killed in miscellaneous flying as otherwise. Along this same line I want to point out that Department of Commerce Bulletin on Civil Aircraft Accidents, published May 15, 1936, shows

that miscellaneous operators in 1932 had an accident for every 355,000 miles flown, and in 1935 this figure was raised to 536,000, which shows only approximately a 25% improvement. This is not a satisfactory improvement in the record when one considers the vast improvement in the design of aircraft used in miscellaneous flying. The increase in safety in the airlines from 1930 to 1935 was 1700%. I wish to call your attention to two other interesting figures on page 271 of the same bulletin. It shows that there were only 141 violations of Air Commerce regulations which resulted in accidents and I take this to mean that this constitutes a large part of the violations that the Bureau of Air Commerce has recorded. In other words, it appears that they are only cognizant of a very small percentage of violations that are taking place. I dare say that the number of violations listed on page 271 would look more like the actual number of violations that could take place at any one of our cities, instead of appearing to represent the entire number of infractions of the whole United States. Does this not go to show that without more far reaching assistance from both the states and a Federal Bureau that should be more extensive than the present Bureau of Air Commerce, the largest element of hazard in aviation today is not going to be adequately coped with. Can anyone advance any reason why miscellaneous operators and private pilots should not be required to exercise the same care and thoroughness that the airlines are demonstrating? Still we find that Congress will spend a good many thousands of dollars investigating the Bureau of Air Commerce and the manner in which airlines are operating and leave miscellaneous flyers to continue to function in the same haphazard fashion they have enjoyed in the past. I am forced again to refer to the conclusions of the Federal Aviation Commission which recommended the establishment of a Federal Commission as mentioned previously, and also recommended that the several states should adopt substantially uniform aeronautical regulatory laws at a reasonably early date and even went so far as to say that if this was not done a Constitutional Amendment should be adopted to give the Federal Government exclusive control over all phases of civil aeronautics within the United States.

A federal commission on air commerce, working in coordination with the various state commissions, could very easily render a far more wide-spread enforcement of regulations and also put across a *positive educational program* that would make all air men, in the category of "miscellaneous flying," come to realize that

their part of the industry is not showing proper caution. Working along this line our Association tried to start a "Fly Safely" campaign, which we hoped would gain momentum, but it did not go far enough. Outside of contributing a few magazine articles and circularizing all pilots in the United States with a letter and a blotter containing six points of caution, we did not accomplish much. We are convinced, however, that here lies a very promising field of education that will offer handsome rewards, and we commend it to the attention of any Senate Committee that wants to make a real recommendation to Congress.

Before leaving the subject of Safety in Air, I want to remind you that when the President appointed a commission in 1934, the impression was given out that the recommendations of that commission would carry considerable weight in shaping up much needed legislation. This commission, it was conceded, did a fine piece of work, and its conclusions were quite generally accepted by the industry as being very sane and well thought out. What was accomplished as a result of their excellent study? To date, practically nothing. The Chief Executive stated, I think, that it was not an opportune time to try to carry out the more important recommendations of the commission. The most plausible explanation that has come to light for shelving the report, was the stubbornness with which Federal Departments, that had a hold on aviation, resisted loosing that hold for the sake of a consolidation. We should like to ask where in the name of heaven did Mr. Farley ever exhibit any qualifications for handling any department in areonautics, and why should the Post Office Department be permitted to prolong the procedure of making political capital out of the airlines?

In order to be as constructive as possible your officers recognized almost a year ago that we should exert every possible effort to coordinate the activities of state officials with the Bureau of Air Commerce, and we thereupon asked for an invitation to Washington so that our Board of Governors could have an intensive conference with the Bureau of Air Commerce. Such a conference was held last January and all of our state officials that attended the meeting left Washington feeling that we had made a large stride forward by establishing a closer relationship between our organization and the Federal Bureau. We were told at that conference that the Bureau of Air Commerce not only intended to work with us, but that they recognized that our assistance would actually be needed when it came to coping with the problems of

increasing air traffic, various types of infractions, and the work of airport construction. We were told to go home and set up an organization paralleling that of the Bureau of Air Commerce, so that our Association would have department heads that could work in closer harmony with the department heads of the Bureau. It was planned at that meeting last January, that for the public benefit, a Department of Commerce bulletin should be published and magazine articles should be prepared, written jointly by the officials of both State and Federal agencies, explaining the functions and relationships of both agencies so that a closer knit organization would be effected and better team work established.

A letter from the Assistant Secretary of Commerce eight months later makes it clear that the Bureau of Air Commerce is desirous of cooperating with the States in many ways, but it also is easy to read between the lines that there are certain limitations placed upon the activities of the present Bureau, and I for one, feel that as long as these limitations exist, aviation in this country will not be permitted to go ahead as it should. For instance, the Department of Commerce finds that although it needs the assistance of the States and State officials in the matter of coping with local infractions and intra-state commerce, yet it cannot make a definite recommendation to any State in the Union regarding the adoption of the Uniform State Aeronautical Regulatory Act, which we unanimously approved at our annual conference in 1934. Contrary to this position, we wish to quote from the report of the Federal Aviation Commission as follows:

> ". . . the commission believes that the early passage of this act by the several States is desirable in the interest of uniformity of regulatory legislation, and it is recommended that the Federal government urge the various States to secure its enactment into law. We believe that such enactment would solve most of the present problems of conflict of jurisdiction and of rule."

To me this backward stand of the present Bureau is not necessarily an act of timidity but springs largely from an administrative policy to sidestep anything that looks like an acknowledgment of states rights.

At the out-set of this brief paper I saw fit to remark that it is not our purpose to be unnecessarily critical. At this point I want to emphasize that we do not propose to be critical of any personnel, but that we feel that the present Federal set-up *as a system* for sponsoring and regulating aeronautics can be improved upon.

On the subject of airport work, it should be said for our Association that we are all exceedingly grateful for the Federal aid that has made possible the expending of some forty-one millions of dollars under the WPA program and probably twice this amount under the FERA and CWA. There is no doubt but that this development work has advanced aeronautics in this country at least several years, and by the same token I think it can be claimed that Federal assistance in the construction and maintenance of municipal airports can very advisedly be continued. It has been said that the WPA airport program is only partially successful, and with the hope that a repetition of mistakes may be avoided, it is my responsibility to mention two or three troublesome variations that have been rather noticeable. In the first place it was a decided set back to this program to have an executive order issued to the effect that work could not be continued on airport sites that were leased by the local municipality. It is almost inconceivable that the few airport projects that were under way on leased ground, which we were not permitted to complete, should ever have made too many landing fields for this country, and we are wondering, if, for the benefit of the industry, and also for the benefit of our National integrity, it should not have been better to have made useable the unfinished landing fields that were started on leased ground.

Later on considerable trouble developed in various States because the promise had been made to the effect that, if the local municipality would provide acceptable land for development, the WPA agency would complete airports on these sites. I am informed that in many cases work was not even begun and that in others the fields have been left in unfinished conditions after the cities, at the direction of the Federal government, had made rather substantial investments for this particular purpose. The WPA organization should be very careful not to invite cities to buy airport sites unless they are prepared to stand by their part of the bargain.

Then again there has been a rather varying policy as to who should supply the engineering and supervision. It seemed to be the logical step for the WPA office at Washington to look to another Federal agency, the Bureau of Air Commerce, to supply technical supervision. It has been explained to this Association that this move was necessary because it did not appear proper to have State officials act both as sponsors and supervisors. We cannot concur in this view, because the responsibility of sponsoring in practically every case was that of the local municipality, and also because the record made by State officials under CWA for actually getting

work done, has not been equalled under either of the more recent relief programs. It seems to me that we are again brought face to face with the position that if we had had the Federal Aviation Commission as recommended, to work in conjunction with the various State Commissions, all of these difficulties and many other inefficiencies could have been avoided. The record, for instance, of the Bureau of Public Roads and the State Highway Commissions in this respect is quite different from our own. Again I wish to make special mention of the fact that these remarks are not intended to be derogatory of anyone in the Department of Commerce. I find, for instance, that the department on airports and air-marking has done just as good a job as could have been done, in view of the limitations and restrictions that apparently came from higher up.

On the subject of increasing air traffic I wish to make only brief mention because this matter has to do particularly with the operation of airlines; and all features of inter-state commerce lie pretty well outside of our jurisdiction. There is, however, one phase of the subject that we cannot ignore. The remarkable improvements in aircraft of all sizes that have taken place in recent years, on account of the development work of the Bureau of Air Commerce, and the NACA laboratories, and also private research, will undoubtedly give rise to rapidly increasing numbers of small ships in the air. We must admit that a large percentage of these small planes are going to operate largely within the confines of State boundaries and will probably not operate commercially, so that they are going to come under the jurisdiction of the local municipality or State, except when doing instrument flying on civil airways. This overlapping of jurisdiction will require a very close coordination between the federal and State agencies. If we are to look ahead and attempt to prepare to take care of an industry that is growing rapidly, we are obliged to provide a uniformity of State jurisdiction that will simplify the problem of taking care of miscellaneous planes and pilots, rather than to complicate the problem.

Your President is convinced that the problem of traffic control is very closely associated with, and almost becomes a part of, the problem of maintenance and operation of municipal airports. This takes us back to the question of who should pay for the supervision and operation of terminal facilities, and I feel certain that the only fair solution is going to lie along the lines of having the operations conducted jointly by the Federal government and the local mu-

nicipality, probably on a plan similiar to the present set-up followed by the various State Highway Commissions. In this matter of traffic control, as in the problems of safety, regulation, and airport construction, there appears always to be the same answer, and that is to have properly organized State Commissions working under the jurisdiction of, and in close cooperation with, a Federal Aviation Commission.

As a result of this sketchy analysis your speaker can arrive at only one conclusion. It is that the finest piece of work which our Association can undertake, would be to urge the establishment of a Federal Aviation Commission in the City of Washington and State Commissions in the various States that do not, as yet, have such bodies. It is our idea that such a Federal Commission would do all of the work that is now being done by the Bureau of Air Commerce, the Interstate Commerce Commission, the Department of State, the Weather Bureau of the Department of Agriculture, and assume most of the responsibility that has been vested in the Post Office Department and various other Federal agencies. We are apprehensive of the outcome of our pet industry if it is not given a department of its own and its individuality preserved. Everyone seems to want to have a hand in the flying game, but very few are qualified. To those of us who can visualize the possibility of aircraft as a very potent instrument of transportation, it is hard to understand why congressmen and laymen should not give us the place in the sun to which we are entitled. In this connection I should like to quote a few words from the pen of our very able pioneer, Colonel Lindbergh, when with his alarming emphasis he exploded a verbal bomb before a Nazi aviation meeting in Berlin last July. He said, in part:

> "We have lived to carry on our shoulders the responsibility for the results of our experiments, which, in other fields, have been passed on to future generations. Aviation has created the most fundamental change ever made possible in war. It has dissolved what we call defensive warfare . . . and we can no longer protect our families with an army. A new security must be found. It must be dynamic and not static—a type of security which rests in intelligence and not force."

It is our purpose, therefore, to undertake as ably as possible the work of fostering the establishing of a Federal Aviation Commission in Washington and appropriate State Commissions in some of the States.

So far as the idea of this campaign for a new commission is concerned we agree to pool our efforts and resources with those

of all other aviation organizations that are interested in this project. It is no concern of ours as to who shall be the leader or who shall reap the rewards. We are principally after results. It is proposed that our Board of Governors, along with the executive staffs of other organizations, such as the Aeronautical Chamber of Commerce, the Air Transport Association of America and the National Aeronautic Association, and any others interested shall promptly hold a round-table discussion for the purpose of deciding upon a proper clearing house and sponsors to put over such legislative program, and it is your President's ardent wish that in this program the National Association of State Aviation Officials will have an active part.

AERONAUTICAL LAW REVIEW—1936*

GEORGE B. LOGAN†

FEDERAL LEGISLATION

The year 1936 has been chiefly remarkable in that there has been no federal legislation of importance concerning aviation. It might seem prejudiced to suggest that aviation has been fortunate in that Congress gave it a breathing spell.

It should be noted, however, that this last year has seen the first effort to break the straight-jacket imposed upon air lines by the Air Mail Act of 1934, as amended in 1935.

You who were "fortunate" enough to hear my last year's review will recall that my remarks concerning this legislation were just a trifle off the complimentary side. The chief objection was to Section 15, which froze the schedules as of July 1, 1935, and which provided that the "off-the-route" operations of an air mail carrier might be enjoined and suspended upon complaint of the Postmaster-General or any interested party, if these "off-the-route" operations "tended to increase the cost of air mail transportation." This Section 15 also provided that the Commission could, after hearing, permit the institution and maintenance of additional service or schedules.

It should be noted that there was no provision in the law requiring the consent of the Commission for any air mail carrier to inaugurate service, even though it might be a competitive service to an air mail contractor and even though it might be inaugurated by another air mail contractor. The power of the Commission was apparently limited to stopping, or authorizing services after they had been inaugurated, and this power was, in addition, limited to stopping or authorizing the services of air mail contractors.

It is quite evident from the Act that an independent company, having no air mail contract, may inaugurate competitive services to an air mail contractor at any time. This does not require the consent of the Commission, nor does the Commission have power to abate such competition. The Commission's power to abate is limited only to the competition that is inaugurated by another air mail contractor.

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* Address delivered at the Sixth Annual Meeting of the National Association of State Aviation Officials, Hartford, Connecticut, September 24, 1936.

† Legal Counsel, National Association of State Aviation Officials.

It was in this status of the law that the Transcontinental and Western Air decided to ask permission to send some of its planes to San Francisco from Albuquerque.

As all of you know, Transcontinental and Western Air has an air mail contract from Newark to Los Angeles, by way of Philadelphia, Pittsburgh, Columbus, St. Louis, Kansas City, Wichita, and Albuquerque.

As all of you also know, United Air Lines has the air mail contract from New York to San Francisco, by way of Cleveland, Chicago, Omaha, Cheyenne, and Salt Lake City. United furnishes transfer transportation to Los Angeles by connection with Western Air Express at Salt Lake City.

The Transcontinental and Western Air decided to furnish direct and through transportation to San Francisco by way of Albuquerque. It accordingly filed with the Interstate Commerce Commission, on August 30, 1935, an application for permission to inaugurate this service, consisting of not more than two transcontinental round trips daily. The petition was filed with the Interstate Commerce Commission, although the petitioner suggested that permission was not necessary and asked the Commission, first, to pass on the question of jurisdiction.

The United Air Lines, on September 21, 1935, intervened with the allegation that this competitive service would compete with its service from New York to San Francisco and would also interfere with its passenger revenue on the route between Seattle and San Diego through San Francisco.

On October 14, 1935, the Postmaster-General intervened and raised the point that, first, the Commission had no authority to entertain the application and, second, that the cost of carrying the mails between New York and San Francisco, and the cost of carrying the mails between San Diego and Seattle would be substantially increased. The Postmaster-General also suggested that the American Airlines and the Western Air Express be given notice of the proceedings so that they might intervene. Both of these companies intervened.

The American Airlines, as you all know, operates the Southern Transcontinental Line through Washington, Knoxville, Nashville, Memphis, Dallas, Tucson and Phoenix to Los Angeles. The Western Air Express operates between Salt Lake City and Los Angeles.

All of the intervenors contended, in substance, that their passenger and express revenue would be decreased and the inevitable result would be to increase the cost of carrying the mails.

The question was first heard before the Commission on the matter of jurisdiction. This argument was had on December 13, 1935, before Division No. 3 and the division held that the Commission should entertain and hear the application. The matter was reargued on February 19, 1936, before the full Commission, and the decision of Division No. 3 was affirmed and a petition for rehearing denied. The application then came before the examiners on the merits of the application on June 2, 1936, and continued until June 11.

Evidence was introduced, first, as to the question of public convenience and necessity, as specified by the latter half of Section 15 of the Air Mail Act, and second, on the question as to whether or not these schedules, if inaugurated, would tend to increase the carrying of the mail.

The abstracts of the evidence and the briefs on the part of T. W. A. have been filed, but not the opposing briefs.

Your general counsel was one of the witnesses summoned, as Chairman of the St. Louis Air Board, to testify before the Commission, and took the position, which was universally taken by persons living along the center of the United States, that this schedule would give direct service to San Francisco, where no direct service now exists. From St. Louis, we must either go to Chicago and thence southwest to San Francisco, or we must go to Los Angeles and thence north to San Francisco. The new service, even eliminating the usual hazards of missing connections, which in itself would be an improvement, shortens the time to San Francisco by approximately two hours.

The decision of the Interstate Commerce Commission on this point will be of great significance. It will determine whether Congress has been successful in its attempt, intentional or otherwise, to freeze the picture of air transportation in the United States, or whether, unwittingly or not, it has created in the Interstate Commerce Commission an instrumentality which has the power to, and will, permit the inauguration of additional services and schedules. The decision of the Commission on this point will be eagerly awaited.

The Copeland Safety Investigation

While it does not come exactly under the head of legislation, it appears, nevertheless, worthwhile to mention the hearings conducted by the sub-committee of the Senate Committee on Commerce under Senator Copeland, engaging in investigating safety in air

transportation, largely as a result of the death of Senator Cutting near Kirksville, Missouri. Many of our state aviation officials, including our President, Fred B. Sheriff, Gill Robb Wilson, Fred L. Smith, Floyd E. Evans, and your counsel, testified at these hearings.

A great deal of diverse and divergent testimony was received. Air accidents were attributed to everything from acts of God to engine failures, including within this broad gap, lack of up-to-date radio facilities, inaccurate and insufficient weather reports, insufficient number of Department of Commerce inspectors, inefficient ground services, inadequate fostering of aircraft development, lack of coordination among the government's departments, failure of the government to encourage inventors, etc., etc. Testimony was introduced concerning new and possible inventions tending towards safety, including parachutes to bring down the ship cabin and parachutes to bring down the entire ship. The testimony taken covers two volumes and it is, of course, impossible to predict the net result of this mass of testimony upon the minds of the senators and further impossible to predict what legislation, if any, may be suggested as a result of these hearings.

One thing upon which the witnesses did not seem to be in dispute was that the air mail acts of 1934 and 1935 had imposed a hardship upon the air carriers and a serious restriction upon their future.

Col. Harold E. Hartney acted as technical aviation advisor for the Commission and was largely responsible for the thoroughness of the investigation and for the breadth and scope of subjects encompassed.

It is to be hoped that the Senate Committee will, as a result of this investigation, evolve and propose helpful legislation, and it is further hoped that Congress, in such an event, will follow the recommendations. The disappointment to all aviation of the fruitlessness of the splendid work of the Aviation Commission and the expenditure of $100,000.00 in its work, when the President disapproved of the most significant finding of his own Commission and when Congress disapproved of the rest, is still rankling as a sore spot.

State Legislation

In the first place, few state legislatures met in the year 1936. Most legislatures convene in the odd years. In the second place, those legislatures which did meet in the year 1936 did nothing of

moment to aid or hinder the aeronautical picture. Hence, the review of state legislation is over.

Important Decisions

United States v. Northwestern Air Service, Inc.[1]—Our old puzzling question as to when a vessel is not a vessel and when a plane is not a plane was before the United States Court of Appeals of the 9th Circuit on December 20, 1935, in the case of *United States* v. *Northwestern Air Service, Inc.*

A Fairchild Seaplane had apparently been used in smuggling or other illegal operations and the government brought suit to impose penalties for violations, not only of the tariff acts, but of the Air Commerce Act. It seems, though, that before the government brought its suit to impose these penalties, the sea plane had been removed from the water and placed in an airplane hangar of the Northwestern Air Service for repairs.

When the government sought to impose its penalties, aggregating $2100.00, the Northwestern Air Service intervened for its repair bill of $1268.00 claiming a maritime lien for these repairs. The District Court held that this being a sea plane, admiralty law applied and the maritime lien was good. In this, the District Court followed the decision in *Reinhardt* v. *Newport Flying Service*,[2] which held that a sea plane while afloat on navigable waters, was a vessel. The Court of Appeals, however, followed the decision in *Crawford Bros. No. 2*,[3] which held that a seaplane, while stored in a hangar on dry land, is not a vessel. It consequently held that the maritime lien would not apply and that the lien of the government for penalties was superior to the lien of the repair man.

In this holding, the court also followed the decision of *United States* v. *Batre*,[4] decided by the same court of appeals in March, 1934, which held that a penalty imposed on an airplane making an illegal flight into the United States from Mexico was superior to the lien of a chattel mortgage. In this latter case, the court held that to hold otherwise would permit a complete evasion of penalties by the device of chattel mortgages.

Neither of these cases seemed to take into consideration the common law lien which every repair man has on the personal property, of which he has not surrendered possession, and which in this latter case, at least, had greatly enhanced the value of the

1. 80 F. (2d) 804 (C. C. A. 9th, Dec. 20, 1935); 7 Journal of Air Law 292.
2. 232 N. Y. 115, 133 N. E. 371, 18 A. L. R. 1324 (1921).
3. 215 F. 269 (1914).
4. 69 F. (2d) 673 (1934); 5 Journal of Air Law 495.

property on which the government was asserting its lien. It would seem to the writer that where a damaged airplane is repaired and its value enhanced by the repairer, innocent of the plane's misconduct and unaware of pending penalties, some consideration should be given to the repair man by virtue of the fact that he has made valuable the very thing on which the government asserts its lien. As yet no such case has come to my knowledge.

Day v. Equitable Life Assurance Society[5]—We have had another life insurance decision which leaves the question of the exact meaning of the words "engaged in aviation" and "aeronautic expeditions" in perhaps just as much of a muddle as it was before. This was a suit on a life insurance policy which promised to pay an additional $5,000.00 if death was the result of an accident, but excluded a death caused by "engaging as a passenger or otherwise in submarine or aeronautic expeditions."

Mr. Day was killed while a passenger on a sight-seeing trip with a friend near Denver. He was a guest only, had no part in handling the plane, and was not a fare-paying passenger.

The court first held that a simple flight such as this was not an "aeronautic expedition," that "expedition" was an inapt word if used to describe an ordinary airplane flight and portended something more important, or a journey for a definite purpose, and cited definitions of the word "expedition" in various dictionaries as proof that this sort of a flight was not an "expedition."

In its decision, the court followed the case of *Gregory* v. *Mutual Life Insurance Co. of New York*[6] and *Head* v. *New York Life Insurance Co.*,[7] also *Gits* v. *New York Life Insurance Co.*[8] It should be noted that in these three cases, while the insurance policy used the word "engaged," it did not use the words "as a passenger or otherwise." It should also be noted that where the words "aeronautic operations" instead of "aeronautic expeditions" were used in conjunction with the words "as a passenger or otherwise," the company was not held liable in *Mayer* v. *New York Life Insurance Co.*,[9] and in *Goldsmith* v. *New York Life Insurance Co.*[10]

There are two state courts which have had before them the exact language of this present policy, namely, "engaging as a passenger or otherwise in aeronautic expeditions." One case was *Gibbs* v. *Equitable Life Assurance Society*,[11] and the other was

5. 83 F. (2d) 147 (C. C. A. 10th, Apr. 7, 1936); 7 JOURNAL OF AIR LAW 420.
6. 78 F. (2d) 522 (1935); 6 JOURNAL OF AIR LAW 626.
7. 43 F. (2d) 517 (1930).
8. 32 F. (2d) 7 (1929); *cert. denied* 280 U. S. 564.
9. 74 F. (2d) 118 (1934); 6 JOURNAL OF AIR LAW 278.
10. 69 F. (2d) 273 (1934); 5 JOURNAL OF AIR LAW 504.
11. 256 N. Y. 208, 176 N. E. 144 (1931); 3 JOURNAL OF AIR LAW 135.

Provident Trust v. *Equitable Life Assurance Society.*[12] The New York court held that it was not liable and the Pennsylvania court held that it was liable.

In the present case, the decision was divided, two judges being in favor of the policyholder and one in favor of the company. Our recommendation as to the weight of authority in this case is to consult your own lawyer, pay him a retainer fee in advance, and then toss a coin.

Metropolitan Life Insurance Co. v. Halcomb[13]—Another interesting insurance company case was decided last November by the U. S. Court of Appeals for the 9th Circuit, the same one which wrote the admirable opinion on ownership of air space hereafter to be referred to.

In this case, the policy provided that the policyholder would be protected in the event of accidental death resulting from an airplane, provided he was a fare-paying passenger. Recovery was forbidden if the death resulted from "participating in aeronautics," except as a fare-paying passenger. In this case, the passenger was flying with the pilot who had a private license only and was forbidden to carry passengers for hire—hence, the policyholder could not have been a fare-paying passenger.

The court held that the company was not liable, but it does not seem to have discussed the question as to whether the passenger in this case was "participating in aeronautics."

It will be remembered that in the case of *Gregory* v. *Mutual Life Insurance Co. of New York,*[14] the court held that a father riding with his son as a guest was not "participating in aeronautics." These two decisions seem to be distinctly and diametrically opposed to each other, provided the question of "participation" was raised in the *Halcomb* case, which does not appear clear.

Casteel v. American Airways, Inc.[15]—A new and novel case was before the Court of Appeals of Kentucky and decided in December, 1935. This was a suit brought by the widow of one Casteel against the American Airways for damages for breach of contract of carriage, first, because the trip was not completed, and second, because it was conducted in a negligent and careless manner.

It appears that Casteel was taken on as a passenger on American Airways at El Paso bound for Louisville, Kentucky. He was afflicted with tuberculosis and was quite ill and was permitted to travel in pajamas and a bath robe.

12. 316 Pa. 121, 172 A. 701 (1934).
13. 79 F. (2d) 788 (C. C. A. 9th, Nov. 4, 1935); 7 JOURNAL OF AIR LAW 143.
14. *Supra*, note 6.
15. 88 S. W. (2d) 976 (Dec. 20, 1935); 7 JOURNAL OF AIR LAW 288.

The carrier sold the tickets with full knowledge of Casteel's condition. At Fort Worth, where a change of planes was necessary, a physician examined Casteel and advised that he should not continue by plane. Both Casteel and his wife protested and both insisted that they be permitted to go by plane. The company refused, took up the tickets and made a cash refund representing the unused portion. The company took Mr. and Mrs. Casteel to a first-class hotel and bore all expenses, purchased the railway tickets and furnished transportation to the station. The couple traveled in the pullman drawing room and were required to change trains only at Memphis. They arrived at Louisville 29 hours later than they would have arrived by air. Casteel stayed in Louisville five days and was then taken to his home 150 miles distant by automobile and died a week later of tuberculosis.

The court held that the defendant was clearly a common carrier and in that respect cited *Curtiss-Wright* v. *Glose,*[16] and *Conklin* v. *Canadian-Colonial Airways, Inc.*[17] It was further held that among other obligations of a common carrier, it was bound to accept all persons who desired to become passengers, but that this duty was subject to the duty owed to all of its passengers, and that this duty could not be lost sight of; that where a passenger's condition was such as to cause danger to other passengers, it was the duty of the carrier to exclude him. If it became the duty of the company to remove him, this duty was in turn hedged about with limitations requiring considerate treatment, etc.

The court held in this case that as to Mr. Casteel the carrier was within its rights in refusing to continue the trip, but as to Mrs. Casteel it appeared that she had elected to remain with her husband and even if her discharge from the plane had not been voluntarily accepted by her, no damages were shown and that the court had properly directed a verdict for the defendant.

The original claims that the trip was intentionally rough and that the pilots intentionally "bumped" the plane, seem to have been lost somewhere in the opinion.

Adamowski v. Curtiss-Wright Flying Service, Inc.[18]—An interesting case of last year was a suit which decided the question as to whether or not instructions in flying were necessities for which an infant could be held liable on his contract.

In 1929, Adamowski contracted for a course as a private pilot, the course was completed, and for this he paid $300.00. In 1930,

16. 66 F. (2d) 710 (1933); 5 JOURNAL OF AIR LAW 154.
17. 266 N. Y. 244, 194 N. E. 692 (1935); 6 JOURNAL OF AIR LAW 284.
18. Third District Court, Massachusetts (Feb., 1936); 7 JOURNAL OF AIR LAW 291.

he contracted for a further course as a limited commercial pilot, the course was completed, and for this he paid $1300.00. Later he contracted for a course as a transport pilot and agreed to pay $3200.00. At all times he was a minor. He withdrew from the transport pilot course in May, 1930, and attained his majority on July 20, 1930, at which time he was informed that he owed a balance of $48.55 on account of the instruction received under the third contract.

The Curtiss-Wright Co. sued him in 1931 and, on July 11, 1931, he disaffirmed his contract and filed a counter-suit or cross-action for the recovery of the $1600.00 paid, with interest from the time paid. The evidence showed that the young man had worked since he was sixteen, had apparently been self-supporting, and took these flying courses as a means to learn a new trade and earn a better living. Although he had completed both courses of private pilot and limited commercial pilot, he was unable to pass the Department of Commerce examinations and had failed to qualify. He had been unable to obtain any work in commercial flying as a result of having taken the two courses.

The court held that these courses of instruction were not necessities and consequently the minor was entitled to disaffirm his contracts and that he had disaffirmed them within a reasonable time and returned judgment in his favor against the Curtiss-Wright Company for the full amount he had paid with interest. This case is pending on appeal and it will be interesting to note what the final decision is, inasmuch as the contracts of a minor for education have, in several instances, been held to be necessities for which a minor could be held liable. It may be that his failure to pass the examinations and hence his total failure to benefit himself financially as a result of these courses had a lot to do with the decision.

Parker v. Granger[19]—Last fall, in reviewing aeronautical law, I discussed with you the case of *Parker* v. *Granger*,[20] which had then been just decided by the Court of Appeals, second district of California. The case has now been decided by the Supreme Court of California. This is the case which involved a collision between two Stinson planes being operated in the filming of a picture of a parachute descent into the Pacific Ocean.

You will recall that Capt. Roscoe Turner was flying a Lockheed Vega from which the parachute jump was made, and that it was being filmed by directors and photographers of the Fox

19. 90 Cal. Dec. 475, 52 P. (2d) 226 (1935); 7 JOURNAL OF AIR LAW 275, 283.
20. 39 P. (2d) 833 (1934); 6 JOURNAL OF AIR LAW 289.

Film Company following in two Stinsons. The two Stinsons collided and eight persons were killed as the planes fell into the Pacific Ocean. Eight suits were filed and they were all consolidated in one action. The suits were filed against Granger & Co., Inc., which company rented the planes to the Fox Film Company and provided the pilots.

The points raised in the lower court and in the court of appeals were that the rule of *res ipsa loquitur* applied in the case of injured persons where there was no evidence as to the cause of the accident. Another point raised was that the court should have permitted in evidence the air traffic rules of the Department of Commerce.

The Supreme Court of California held that the *res ipsa loquitur* rule did not apply in this case, because the planes each had dual controls and that at one of the controls in each plane was the pilot and at the other was an assistant director of the Fox Film Company and hence it was not shown that the defendant Granger, Inc., through its agents, the pilots, were in exclusive control of the planes at the time of the accident. In other words, inference was left that the assistant directors might have been piloting the planes at the time of the collision.

Of much more significance is the holding of the California Supreme Court that under the Federal Constitution the air traffic rules could not apply to intrastate flying in California; that this was intrastate flying and the legislature of California had imposed no air traffic rules and hence the air traffic rules of the Department of Commerce were not applicable.

This is the first decision of a high court that the air traffic rules, which are clearly intended by the Air Commerce Act to apply to all types of flying, on the theory that it is necessary to regulate all types of flying in order to protect interstate commerce, do not, in fact, apply to intrastate flying.

If this holding is followed by other high state courts, it is obvious that this Association and all others should bestir themselves to see that air traffic rules are put into effect in each state by state legislation. If the federal air traffic rules do not apply to intrastate flying and there are no state rules, then there is no means by which miscellaneous flying may be controlled, and we are all well aware of the fact that miscellaneous flying in air miles is greater than all interstate flying, and has heretofore been, and, unregulated, will continue to be, the greatest source of air accidents.

Budgett v. Soo Sky Ways, Inc.[21]—That the California court

21. 266 N. W. 253 (March 30, 1936); 7 JOURNAL OF AIR LAW 420.

was right in holding that the *res ipsa loquitur* rule should not apply where there was a possibility of more than one person being at the controls is made more clear when we examine the case of *Budgett* v. *Soo Sky Ways,* decided in 1936.

In this case, one Budgett and his friend, Schmidt, both licensed pilots, went to the airport near Sioux Falls, for the purpose of buying a ship. The defendant company sent a pilot, Jack Hollister, to demonstrate a Travel-Air open cockpit model. The plane had two cockpits, the front one, designed for two passengers, and the rear for one passenger, and the cockpits were equipped with dual controls, hooked up. Hollister demonstrated the plane and was in the rear cockpit and Budgett and Schmidt were in the front. While flying over the airport, the plane, in some manner, got out of control and crashed to the ground and both Budgett and Schmidt were killed. At the trial, the plaintiff relied, first, on the fact that the Department of Commerce rule was being violated by having both controls hooked up, but the defendant contended that Budgett, being a licensed pilot and familiar with the regulations, was negligent in riding in a plane with the controls hooked up, contrary to the regulations.

The court held, first, that there was no evidence that this negligence was the cause of the injury, but more importantly ruled that the *res ipsa loquitur* rule did not apply to this case, because there was no evidence that the plane was in the control of Hollister, the defendant's pilot. It was not more probable that the ship was being flown by Hollister than by Budgett or Schmidt.

These two cases only follow out the general law that the rule of *res ipsa loquitur* does not apply unless it is clearly shown that the defendant is in charge of the instrumentality causing the injury.

Krenwinkle v. City of Los Angeles[22]—We have frequently discussed at our meetings the question as to whether or not a city, in operating an airport, is engaged in a commercial enterprise or in the performance of a governmental function and have also frequently discussed the liability of the city in so operating an airport as controlled by the question as to whether it was or was not performing a governmental function.

We have had some light thrown on this question by the decision in the case of *Krenwinkle* v. *City of Los Angeles,* decided by the Supreme Court of California in November, 1935.

In this case an individual taxpayer brought a suit to restrain the city of Los Angeles from operating a municipal airport, con-

22. 51 P. (2d) 1098 (Nov. 20, 1935); 7 JOURNAL OF AIR LAW 290.

tending, first, that the rental which the city was to pay for the land, over a long period of years, constituted an indebtedness in excess of the charter authority of the city for the current year. The court, of course, held as to this that only the current year's rental should be considered an indebtedness in determining the aggregate indebtedness of the city for the year. The second point urged by the taxpayer that the charter of the city of Los Angeles prohibited the city from engaging in any "purely commercial or industrial enterprise."

The court in this case held, first, that the state of California had, by statute, authorized the acquisition and maintenance of airports by municipalities. Secondly, the court held that this was not a purely commercial or industrial enterprise, but a "public enterprise."

In this decision, the court cited for approval the case of *Hesse* v. *Rath*,[23] which was an opinion of the Court of Appeals of New York written by Mr. Justice Cardozo.

The California Court might also have cited the case of *Wichita* v. *Clapp*[24] and the case of *Dysart* v. *St. Louis*[25] and several other cases.

It must not be thought, however, that this decision is in any way an authority for the proposition that a city, when operating an airport, is not just as liable as an individual. A city may, by legislative enactment, and by public charter, be authorized to engage in activities which are beyond the scope of what we call "governmental functions."

A city is clearly acting within its governmental function when it maintains a police department, but it is not within its governmental function when it is maintaining an ice plant for the purpose of selling ice to the poor. Both activities may be legal and both activities may be proper spheres in which to spend public money, but in the one case the city may not be liable for the negligence of its policemen, but may be liable for the negligence of employees of the ice plant.

We all recall the case of *City of Mobile* v. *Lartigue*,[26] in which the city was held liable for damages resulting from the method and manner in which it had constructed its municipal airport by throwing water on to the plaintiff's land.

We still anticipate that a decision will some day be handed down in which a city is held liable for defects in, or defects in the management of, a municipal airport.

23. 249 N. Y. 435, 164 N. E. 342 (1928).
24. 125 Kan. 100, 263 P. 12 (1928).
25. 321 Mo. 514, 11 S. W. (2d) 1045, 62 A. L. R. 762 (1928).
26. 23 Ala. App. 479, 127 So. 257 (1930); 1 JOURNAL OF AIR LAW 365.

DeVotie v. Cameron[27]—An interesting case involving the application of air traffic rules of the Department of Commerce under the provisions of the Air Commerce Act was before the Supreme Court of Iowa in *DeVotie* v. *Cameron,* decided March 10, 1936.

One queer thing about this case is that the function of the defendants, Cameron, et al. was not shown. We assume that he was one of the members of the State Fair Board.

On August 28, 1930, a state fair was being given and the Curtiss-Wright Flying Service had, under contract, furnished three airplanes for an exhibition. Two of the planes collided and one fell to the ground, fatally injuring DeVotie. Mrs. DeVotie first sued the Iowa State Fair Board as an entity and the Supreme Court of Iowa held in that case,[28] that the State Fair Board, being a governmental body, could not be sued. This new suit was, therefore, filed against Cameron, et al., who, we assume, were the individual members of the Board.

The petition charges that the individual members had conspired to do illegal acts, namely, to violate the air traffic rules and the state statutes of Iowa imposing air traffic rules. Among other things, it was alleged that the flight took place at less than 500 feet, at less than 1,000 feet over an open air assembly of persons, and that acrobatics were indulged in at less than 2,000 feet over an assembly of persons.

The court held that the air traffic rules were not binding on a sovereign state in its sovereign capacity and that the conducting of a state fair and giving of exhibitions was nothing more nor less than the discharge of the state's sovereign political functions by an agency selected by it for that purpose.

In this case the court followed the case of *Morrison* v. *Fisher,*[29] which is identical with this case, inasmuch as it involved the death of a spectator at the Wisconsin State Fair at Milwaukee many years ago in an exhibition flight given by the famous old-time pilot, Arch Hoxsey.

Hinman, et al., v. Pacific Air Transport and United Air Lines Transport Co.[30]—It seems as if we at last have a decision which clearly and definitely settles the question of trespass in air space. This is a decision in the case of *Hinman, et al.* v. *Pacific Air Transport and United Air Lines Transport Co.,* decided July 20, 1936, by the United States Court of Appeals for the 9th Circuit in a case which arose in the Southern District of California.

27. 265 N. W. 637 (March 10, 1936); 7 JOURNAL OF AIR LAW 419.
28. 249 N. W. 429.
29. 160 Wis. 621, 152 N. W. 475 (1915).
30. C. C. A. 9th, July 20, 1936.

Other cases such as *Smith* v. *New England Aircraft Co.*,[31] *Swetland* v. *Curtiss*,[32] and *Thrasher* v. *Atlanta*,[33] left much to be desired on the express proposition as to whether or not a land owner actually owned unoccupied, unused and unenclosed air space above his land. The American Law Institute, in restating the law of trespass, held, over the protests of the members of the American Bar Association Aeronautical Law Committee, to the explicit doctrine that the owner of the land did, in fact, own the air space and that a flight through this air space was trespass, unless "privileged." The American Law Institute then went to a great deal of trouble to define the circumstances under which flight would be "privileged."

Your legal counsel in 1930 took the position that there was no such thing as ownership of unenclosed air space. Dr. Arnold G. McNair of England, some three years later, in his book on air law, also announced the doctrine that ownership of mere space was abhorrent to the common law. Mr. John C. Cooper, Jr., when chairman of the Aeronautical Law Committee, personally appeared before the American Law Institute and argued that there could be no such thing as ownership of air space.

In the case which arose in California, the plaintiffs, who owned the property adjoining the airport in the City of Burbank, filed a petition in which they alleged that they owned 72½ acres of real estate, "together with a stratum of air space sub-adjacent to and overlying said tract and extending upwards to such an altitude as plaintiffs may expect now or hereafter to utilize, use or occupy."

Without limiting themselves as to upward limits, the plaintiffs stated that they "may reasonably expect now to use and occupy said air space to an altitude of not less than 150 feet."

The plaintiffs then went on to allege that airplanes were being flown through this air space below the height of 150 feet, alleged that the value of the use of this air space by the defendant companies was $1500.00 per month, and asked for $90,000.00 covering sixty months.

The plaintiffs also alleged that the airplanes followed one of two courses in landing and departing over their land, described the courses and stated that repeated use would tend to create an easement and would tend to deprive them of their property in time. They asked for an injunction and asked for the value of the user.

The court first considered the old *ad coelum* formula, which

31. 269 Mass. 639, 170 N. E. 385 (1930); 1 JOURNAL OF AIR LAW 367.
32. 41 F. (2d) 929 (1930); 55 F. (2d) 201 (1931); 2 JOURNAL OF AIR LAW 82.
33. 173 S. E. 817 (1934); 5 JOURNAL OF AIR LAW 332.

you have all heard me talk about and which has been construed to mean that the owner of the land owns from the surface to the zenith. And the court frankly said that if it could adopt this formula as being the law, it would simplify the solution of the case, but said: "We reject that doctrine. We think it is not the law, and that it never was the law." The court, however, then pointed out that the plaintiffs did not claim an absolute and exclusive title upward to the sky, but that they did claim a present and absolute title to the space to such height as is or may become useful to their enjoyment of the land and claimed title to at least 150 feet. In solving this problem, the court said: "The first and foremost principle is that the very essence and origin of the legal right of property is *dominion over it.* Property must have been reclaimed from the general mass of the earth and it must be capable by its nature of exclusive possession. *Without possession,* no right in it can be maintained."

The court then went on and said: "The owner of land owns so much of the space above him as he uses, but only so long as he uses it. All that lies beyond belongs to the world."

The court said, however, that if the facts should show that the method of flying over the plaintiffs' land constituted an impairment of his full enjoyment of the land, they would be entitled to relief in a proper case. It so happened in this case that the plaintiffs did not allege any damages to their land, but simply claimed a damage to their air space.

The District Court of Southern California had previously dismissed the petition and the Circuit Court of Appeals affirmed its action.

It is interesting to note also, before we leave this case, that the court held that it is not legally possible to obtain an easement by prescription through air space. The court did not elaborate on this feature of the case, but it is evident, of course, that if the land owner does not own the air space, the use of it is not adverse, and no rights may be obtained by use, no matter how long or continuous or definite.

It is to be hoped that this decision, clarifying the situation with respect to air space, will remain final and be universally accepted. The tendency of all decisions has been in this direction. This leaves the land owner fully protected. Whenever flying is so conducted as to harm him, it may be enjoined. When it does not harm him, it should not be enjoined. In any event, it leaves the land owner free, at any time in the future, to improve his property in a proper manner to any height he sees fit, and the fact that airplanes have traveled over it in a given line for years and years does

not mitigate against this right, nor create any rights in favor of the airplanes.

It would seem that those advocates who have insisted that the land owner owns the air space have been short-sighted in this regard. If air space is owned, the air companies might, by flying through it constantly on the same line and at the same height, acquire a prescribed right, which some day in the distant future would prevent the land owner from building at that particular spot. The doctrine of non-ownership of air space gives him better protection in the long run than the doctrine of ownership.

City of Iowa City v. Tucker[34]—Another case involving the allegedly conflicting rights of adjoining land owners and the rights of airports and the users of airports, was the case of *Iowa City and United Air Lines* v. *Tucker,* decided by the District Court of Iowa in Johnson County, Iowa, on September 14, last.

In this case, the adjoining land owner, Mr. Tucker, objecting to the flight of aircraft, had planted trees and erected poles along the boundary line of his property, which seriously interfered with the use of the airport.

The court held that every land owner was entitled to the "proper" use and enjoyment of his land, but that trees and poles along the boundary line which would attain a heighth of over 25 feet would not constitute proper use and enjoyment of his land and the defendant was, therefore, enjoined against the permitting or planting or erecting of such poles and trees. This case, if appealed from, as to which I am not informed, has not yet been decided by a higher court.

The year, in summary, has settled the question of air trespass. It has not settled the correct and final definition of "participating in aviation" and not finally the meaning of aeronautic expedition. Some clarifying of the rules of *res ipsa* has been had, and some clarifying of the status of amphibians as vessels.

The serious blow that has been dealt is the California decision that the United States air traffic rules do not apply to intrastate flying. This will ham-string the Department of Commerce in those states where there are no state rules, or where there are state rules but no machinery for or enthusiasm for state enforcement.

I cannot help but feel that the Federal Courts will take a different view. My recommendation to the enforcement division of the Bureau of Aeronautics would be to make a test case and take it to the U. S. Supreme Court before too many of the state courts follow the lead of California and build up a formidable body of case law.

34. Johnson County District Court of Iowa (Sept. 14, 1935); 6 JOURNAL OF AIR LAW 622; 7 JOURNAL OF AIR LAW 293.

AVIATION LIFE INSURANCE

JAMES E. HOSKINS*

The subject on which you have given me the honor to speak is especially appropriate to discuss at this meeting because of Hartford's deep interest in both aviation and insurance. We in the insurance companies are proud of our aeronautical neighbors, some of whose operations you inspected yesterday, and I hope that they in turn feel that we have taken a progressive attitude toward our mutual problems.

It happens that the first study of aviation statistics for the purpose of making life insurance rates was done by Hartford actuaries.[1] Our present knowledge has grown out of their pioneering work much as the modern air transport systems have evolved from the first air mail flights. After the stimulus which Lindbergh's flight and other events gave to aviation in 1927 the Actuarial Society of America in the following year appointed a committee on aviation to tabulate and interpret available data and to give the federal departments such assistance as they might desire for putting their statistics into a form applicable to life insurance. With the cooperation of the Commerce, Navy, and War Departments, the Aeronautical Chamber of Commerce, and various other organizations and private individuals, the committee has made a report to the members of the Actuarial Society each year since 1929, and has gradually, in the words of the Society's motto, substituted facts for appearances and demonstrations for impressions. Since the Society's membership includes actuaries connected with all the large life companies and many of the smaller companies, the facts are thus piped from their source to the point at which they will do the most good. I hope you will pardon my dwelling on the amount of study which insurance men have given to aviation, because there are still aviation men who appear to suppose that our knowledge is most elementary, and that we are applying to scheduled air transport pilots the results of statistics which include inexperienced, or even unlicensed, pilots.

Before I speak of what we have learned, may I take a moment to recall to you the fundamental principles of life insurance. Life

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1. Messrs. James S. Elston and Hartwell L. Hall made this study on behalf of The Travelers Insurance Company.

insurance, like practically all insurance, deals with a happening which is relatively unlikely—in this case, premature death,—which causes severe financial loss when it does occur, and which is about equally likely to happen to any one of a group of persons insured, as far as can be foreseen. These people, in effect, pool a part of their resources, and agree that a certain amount shall be paid out of the fund each year to the families of those members who die within the year. The company merely supplies the machinery for collecting the contributions and then paying them out. From the contributions it deducts the cost of managing the fund. It is important to remember that the insurance company does not create wealth; it merely distributes it. The money it pays out in claims it does not dig out of the earth or pick from trees or buy from the manufacturer; it was paid in by the customers, who have in a sense combined to share their misfortunes, and hire the insurance company to do the incidental work. In the last analysis the company can pay its claims only if its policyholders have paid in adequate contributions or premiums.

Bear in mind the requirement that death must be about equally likely to each man in the group—by "group" meaning those who pay the same rate of premium. This will be important in our consideration of aviation risks. For a man to enter the group whose chance of death is higher than that of the rest of the group is like introducing loaded dice into a game of chance. He *may* happen to live longer than some of those whose chance of death, as measured when the insurance was issued, was smaller, but the probabilities are in the other direction. If he asks to buy insurance for less than he would pay if the company insured only people with hazards similar to his own, then his position is no different than if he asked his fellow policyholders to help him pay his grocer's bill. In either case he is paying less than value received and others must make up the difference.

Even this might be feasible if every man in the country were to buy insurance on a fixed plan and of a fixed amount. But the fact is that each individual is free to choose whether he will buy insurance, what kind he will buy, and how much. As might be expected, those who believe themselves to be in poor health, or unusually subject to the risk of accidental death, are more receptive to the insurance agent than is the average man, and are willing to buy larger amounts.

It would perhaps be possible for companies to insure any or all comers for any amount they are able to pay for, and find a rate

high enough to cover the resulting claims. This rate, however, would be so high as to be unfair to the great body of average policyholders. Moreover, if a single company tried this, it would attract only those who couldn't get insurance elsewhere, and even its high rates would not be high enough.

Nevertheless the companies are in the business of accepting applicants, not of rejecting. They make no money from plowing every third applicant under. In practice they set a standard which will admit the great majority of applicants, which is as liberal as possible without seriously overcharging the many average for the benefit of the few who are close to the borderline of the standard, and which is so chosen that the small proportion who are moderately worse than the average are balanced by others who are better than the average.

Some companies go a step farther than this and set up special rates for groups of policyholders who do not qualify for the standard rate but whose chance of early death is still remote and whose expectancy is not much shorter than the normal. This insurance of special classes for various reasons is not undertaken by all companies.

Another factor to be considered is that life insurance is usually a contract running for a long period of years. The company must estimate the extent of any unusual hazard, not merely as it exists when the policy is issued, but over the term of the policy. If the hazard becomes permanently greater than the estimate, the company cannot alter the contract and must continue it at the original rate, but if it becomes permanently less, the policyholder is likely to expect a reduction in cost. In particular, in setting a premium rate for fixed base operators, we must expect that they will spend more time in the air as business improves than they have in the last few years.

In giving you this somewhat technical discussion, I realize that it is not a matter with which you are directly concerned, and that you have plenty to keep you busy in developing aviation without bothering about the conduct of the insurance business. I suspect, however, that pilots who have a fancied grievance against life insurance sometimes cry on your shoulder, and you are in a position to promote good will by showing them that after going into the matter you have found that the insurance companies' methods are fair to all concerned.

It has been suggested that the total number of pilots is still so small a proportion of the population that they could be insured at

the standard rate by increasing that rate only a trivial amount. That may be true. By the same reasoning the companies could insure everyone in the United States who is at the moment dying of some rare disease, say Rocky Mountain spotted fever, without material loss in the aggregate. This simply means discriminating in favor of those who are subject to a large but uncommon hazard and against those more numerous groups, like locomotive engineers or fat men, whose extra risk is less than that of aviators, but who pay without question the small extra premium customarily required. Moreover, the method would break down when the number of pilots increased beyond a certain point even though flying might be more safe by that time.

Again, it is sometimes argued that since a man insured at standard rates continues to be covered without extra charge if he subsequently becomes a pilot, then the company should not discriminate against the man who happens to be a pilot already. This can be disposed of in a moment by remarking that while the companies continue to cover policyholders who develop heart disease, and pay many death claims on that account, yet they are hardly expected to insure those whose hearts are bad when they apply for insurance.

From the fact that many commercial pilots in their thirties pay a rate about double the standard, an interesting suggestion has recently been made that a policy could be written at standard rates paying half the face value in event of an aviation fatality. On reflection we see that such a policy, paying full indemnity for natural deaths and half for aviation deaths, would call for not only the full standard premium, but also half the usual aviation extra charge, instead of eliminating the latter entirely.

Another important point is that the insurance company must figure its risk by the year. A transport pilot of long experience may be, and ought to be, safer to fly with than a private pilot with a couple of hundred hours, but if the former flies a thousand hours a year to the second man's fifty, he is a worse risk from the insurance company's viewpoint. For this reason airline pilots, for example, will pay a higher rate for insurance than some other classes whose skill is far less.

Still another fundamental principle is that insurance deals not with individuals but with groups. We don't pretend to know how long our applicant John Smith is going to live. But if we can get a thousand men of John's age whose chances of long life seem about as good as his, as far as we can see, we think we know how long they will live on the average, and about how many will die

each year, although without knowing which will be the first to go. Some companies have only one class, one scale of rates, and they accept only those risks who are good enough to qualify for that scale. Specifically they will not insure aviators (except with flying excluded—of which more later), or for that matter the members of any occupation which is materially more hazardous than the daily life of the average business man. At least these companies do not *discriminate* against aviators; they do not treat them any less favorably than other occupations of considerable hazard. In fact, by offering them partial coverage they treat them somewhat better. There are, however, a number of companies which have several scales of rates for policyholders with different degrees of risk, and most of these will insure those who fly, at appropriate rates. These rates have been determined with great care. No other occupation has a special committee of actuaries devoting themselves to its statistics, and in the case of no other occupation are the statistics reviewed as often as annually, to observe any real improvement in safety as soon as it occurs. The rates which result from these statistics are not entirely uniform between companies, for our committee is a fact-finding body and not a code authority, but the differences are no greater, I believe, than in the case of other special risks, and reductions have been promptly made effective whenever justified.

Of course there are some applicants whose flying is hard to classify, and we may seem to treat them as individuals, although what we really do is to put them into a hypothetical class and consider what would happen if we insured a thousand men like them. This has been referred to as the Darius Green method of underwriting, which I take it is the aeronautical equivalent of the horse and buggy age. In due time we shall have enough information to classify them as accurately as I believe we are now classifying the more usual classes of fliers. In every case we are acting on the best available information, and are not, as is sometimes stated, charging more than we would if we had a greater spread through insuring more fliers. Since we have access to government statistics covering all pilots, we are not handicapped by the fact that our insurance experience on them is still rather limited.

As an example of the principles on which rates are made, it has been found that in airport hops and cross-country taxi flying over a recent period of years, there have been pretty consistently about 8 pilot deaths for each 100,000 hours flown. If pilots engaged mainly in these classes of operation may be expected to average 300

hours a year during their flying career—perhaps less in depression years and more in boom years—then you will see that each member of this group must contribute $24 a year for each $1,000 he owns to pay for the death claims arising from air accidents. This is practically all extra hazard due to occupation, inasmuch as the chance that the average man on the street, with no present interest in aviation, will eventually be killed while flying as a commercial pilot, is negligible. Hence, under these conditions the actual premium charged should be about $24 more than the standard rate. (In practice, there would be other factors to consider. For instance, the company will have some extra expense in handling these special classes, but, on the other hand, would gain from the fact that pilots are subject to periodical physical examination. We are discussing now the general methods of rate making rather than the rates actually produced.)

Now it is obvious that a class of pilots which theoretically requires an extra premium of $24 a $1,000 does not come within the scope of insurance at standard rates. Nor, for that matter, do any of the classes which have been investigated.

I mention this to give you an insight into our methods, not to bore you with a schedule of our various statistics and ratings. You may be interested, however, in a few of our tentative conclusions.

It appears that the most dangerous time in a pilot's career is not while he is taking instruction or in the early part of his solo flying, but for a period after he receives an advanced license or military rating. At first he knows he is green and plays safe; eventually he gains skill; but there is an intermediate time when his self-confidence exceeds his ability.

Pilots who have been involved in an accident in recent years or have been disciplined for a serious violation of air regulations have a greater chance of a fatal crash than those who have not, although they might be expected to have become especially careful. Whether this indicates in some cases a lack of physical or mental aptitude is an interesting question.

No great difference has been observed between the younger pilots and those of more mature years. Perhaps this might not be true but for the care exercised in licensing pilots.

Airplane owners and non-owners show no great difference in risk, if all other things are equal.

The kind of flying is very important. Those kinds which are most closely supervised, either by yourselves and Uncle Sam, or by responsible owners, are clearly the safest, such as airline and mili-

tary flying, and airplanes owned by corporations for business use. In the case of airline pilots, however, this is offset by their large number of annual hours in the air.

The average amount of flying in the course of a year is by far the most important factor affecting the insurance company's problem of charging for a year's insurance.

While we find some groups of pilots much worse than the average, we find none much better than the average. In other words, there seem to be a few who are impossible as insurance risks, and a lot who are nearly as good as the best. I know there are those who disagree with this, and we are constantly studying the matter. All scientific conclusions are tentative, and subject to change as our knowledge expands. And may I remind you that I am speaking from the standpoint of the insurance company, which asks, how safe is this man in a year of actual flying, not how safe would he be in a single hand-picked flight.

As you know, Connecticut has a system of supervision over flying which I understand is unique, involving monthly inspections of aircraft and unusually close contact of the inspectors and flight surgeons with the individual pilots. Our committee has been privileged to review the Connecticut accident records from the founding of the department. We compared the number of casualties to Connecticut pilots with the number which would have occurred if these pilots had been subject to the same accident rates as prevailed in the entire country. The Connecticut accident rate turned out to be about 20% below normal. Now we actuaries are reputed to be cautious, and when we see a flock of white sheep from a distance, we will concede only that they are white on one side. So we are not ready to draw definite conclusions from statistics involving only thirty or forty casualties. But off the record, I don't blame Mr. Morris if he feels happy over the showing.

You are concerned, as we are, with the safety of the passengers as well as of the pilot. The life insurance company's problem is different from that of the individual passenger. The latter may be satisfied to know that in traveling between two points by air, the odds are immensely in favor of his making the trip safely and are nearly as great as in some other customary modes of travel. The life insurance company, however, figures not by the trip but by the year. The much greater speed of air transportation makes it possible for an individual to travel far more miles a year than in any other way. This in itself would raise the cost of the travel hazard to the life insurance company, in the case of a policyholder regu-

larly traveling by air, above the hazard of travel by, say private automobile, even if all other things were equal. This points to the conclusion that if air travel is to be taken for granted by life insurance companies as automobile travel is, than the fatality rate *per 1000 hours* must be reduced to a comparable point.

Over the last five years the passenger death rate in scheduled flying has been nearly 4 per 100,000 passengers carried. Expressed in another way, the odds are over 25,000 to 1 against being killed on a trip by air transport, and several thousand to 1 that the traveler will reach his destination in good condition, since non-fatal injuries are also comparatively few.

Since the average trip in this period was about three hours long, the death rate has been about 1½ per 100,000 passenger hours. To put it still another way, in a group of policyholders who each travel 100 hours a year on the airlines, the death claim cost to the life insurance company on account of air transport accidents will average $1.50 a year for each $1,000 of insurance. This is practically all extra cost caused by the aviation hazard, since the normal chance that a business man will meet accidental death in the course of 100 hours costs the insurance company only about $.01 for each $1,000 insured. Considering that the standard rate of premium averages perhaps $30 per thousand of insurance, and may go as low as $10 for short term insurance, it is easy to understand that a life insurance company may feel that it has not sufficient leeway to absorb a mortality cost as great as $1.50 above the normal. Yet 100 hours represents less than 20 round trips of average length, and there are many business men who fly as much as this. A much greater amount of business travel by air in the course of a year is easily possible. This explains why many companies charge a rate higher than the standard when the policyholder customarily flies more than a limited number of hours a year even in the safest and best regulated kind of flying.

To speak of the attitude of insurance toward those who fly is too broad an expression. We really mean those who fly quite a bit. When a man takes only an occasional passenger trip, we are not concerned. We have no attitude toward him. We don't speak of him as an aviation risk. It is only when the applicant's flying is frequent, or promises to become so, that we put him in a different class from his fellows who travel in the subways. A few companies, my own among them, have gone a step farther and adopted the view that airline travel is a normal incident of modern business. They classify the airline passenger according to his regular occupa-

tion, as a manufacturer, a lawyer, or a salesman, just as he classifies himself, and not as an aviator.

The fact that some life insurance companies charge a special rate for policyholders who frequently use the airlines does not imply that the risk of air travel is great, but merely that the total risk of such a man is above that of the average policyholder. If the risk were really large, life insurance could not be bought on any terms. As I have said, the chance of a fatal accident in an airline trip is very small, and even when a man makes a hundred trips or more in a year, the odds are much against his meeting an accident in that time. A life insurance premium rate which exceeds the normal by $2.50 or $5.00 per thousand on account of the aviation hazard is not inconsistent with this. It obviously represents odds of several hundred to one against death in a year as a result of air travel.

The comparative safety of the airplane and other vehicles is often discussed. According to the latest available figures, the average number of passenger miles per fatality is a little less on the airlines than in private automobiles; that is, the airlines are almost but not quite so safe as the average private car—an average based on the record of both careful and reckless drivers.

In the perhaps more relevant comparison with other public carriers, busses appear more than ten times as safe as airlines, and railroads thirty to forty times as safe. If we count all injuries, not merely deaths, the lead of the busses and trains would be cut down somewhat. It has been said that in a trip of say, two hundred miles, the chance of injury *to someone* is greater if the trip is made by auto than if by airline. This is due largely, however, to the absence of pedestrians in the air.

The question is sometimes asked why a life insurance company even inquires as to the amount of business flying an applicant does, whether on the airlines or in a plane owned by his own firm, considering that he is not asked how much he travels by automobile and that the safety of airline travel is approaching that of automobile travel on the basis of miles covered. The answer lies in the fact that the air traveler is able to cover a much greater distance in the course of a year. From the standpoint of impressing the passenger with the safety of aviation it may be sufficient merely to bring the fatality rate per 1000 miles down to that of other regular means of travel. From the standpoint of life insurance, however, the fatality rate on the basis of *hours of travel* must be brought within hailing distance of the comparable rates for other carriers. We have spoken of the average claim cost for 100 hours

annual travel by airline as being about $1.50 per $1,000 of insurance. The corresponding figure for private automobile travel is about $.15. It should be remembered that in the case of automobile travel the hazard is not all extra hazard inasmuch as automobile travel is so common as to be part of the normal risk of the average man. The standard rate for life insurance includes the cost of the average amount of automobile traveling by the average policyholder. Few men, if any, travel so much by automobile in a year that the excess of their risk over the average is more than the company can absorb. If the time comes when the air lines are as universally used as private automobiles, then probably no extra life insurance rate will be charged for air travelers, unless their use of aviation is much above the average, and perhaps not even then. But unless air safety is still further improved by that time, this merely means that the standard rate would have to be increased, so that when measured against today's rate there would still be an extra charge caused by air travel. The comparison just made between the respective insurance costs of a given number of hours of travel by air and by motor indicates that if the air hazard is to be ignored in life insurance as is the hazard of automobile travel, then the fatality rate must be reduced to something like one-tenth of its present size. Even this improvement would leave the fatality rate per million passenger miles not quite as good as the record of busses and would leave it considerably less favorable than that of the railroads. This refers to scheduled flying. In less supervised types of flying an even greater improvement is necessary. Here is a definite and, let us hope, attainable goal.

I have intimated that insurance applicants connected with aviation are occasionally issued a policy which differs from the normal policy in that the death benefit is reduced if death occurs as a result of aviation. Sometimes in these special policies[2] full coverage is given for flight as an airline passenger, and sometimes for any fare-paying travel.

The reasons why life insurance companies write policies which exclude the hazard of death while engaged as a pilot, and not policies which exclude the hazard of employment as, say, a railroad switchman, are these: first, purchasers of large policies are more likely to be engaged in flying than in any other hazardous pursuit; second, men now in business or professional positions are more likely to take up aviation than they are to turn to some other hazardous occupation or sport; third, the difference in risk between

2. See *Fred M. Glass*, "Aeronautic Risk Exclusion in Life Insurance Contracts," dealing in part with these restricted policies, in 7 JOURNAL OF AIR LAW 305 and 560 (1936).

the best and worst pilots is unusually great, so that there is sometimes difficulty in classifying an applicant. Companies which have only one scale of premiums, namely, the normal or standard scale, therefore use this exclusion clause in order to give at least partial coverage to applicants whom their agents meet in the ordinary course of business and who turn out to be interested in aviation. Other companies use it in cases where the hazard is too great to be covered by any reasonable extra premium or where there are unexpected difficulties in assessing the proper rate or where the applicant thinks the rate quoted is excessive and requests a restricted policy at standard rate. Inasmuch as insurance rates for the principal classes of pilots are based on official statistics, they cannot properly be called "excessive." A high rate is not necessarily an excessive rate. In this case it merely corresponds to a high risk. A pilot who asks for insurance thus restricted is betting it is unlikely that his death when it occurs will be in an air accident. For some years ahead the odds are against him; if a pilot dies young, it is more likely to be in an air accident than from natural death--and if he loses, the loss will fall on his family. Life insurance is one of the things that is paid for whether you have it or not. The only choice is whether it is to be paid for now by an able-bodied man with a job, or later by his widow and orphans. The higher the premium rate, the more urgent the need for making provision.

Some companies therefore take the attitude that the interests of the beneficiary should be protected against the bad judgment of the policyholder. These companies confine the use of the exclusion rider largely to applicants who have discontinued flying but where the permanence of the change is in doubt. Under these conditions if the policyholder carries out his intention to cease flying there is in effect nothing excluded. If he resumes flying he can obtain full coverage at the appropriate price. (Even this exclusion rider, by the way, is not permitted in some states. In these states the company must either reject the application in cases where a rider would otherwise be used or resort to a very clumsy substitute which meets legal requirements.)

Finally, what can you as supervising authorities do to advance the day when flying need no longer be considered as a special insurance hazard? The most obvious answer is to stop the accidents. Beyond that, seize every opportunity to urge the pilots, air passengers, and the aviation industry to help us classify and rate properly, by furnishing all information that may be asked for by yourselves, by the Department of Commerce, or by our committee.

Thank you for the privilege of telling you what we are doing to keep pace with the advance of air transportation.

THE WORK OF THE COPELAND COMMITTEE

HAROLD E. HARTNEY*

You have requested me to say a word about the work of the Copeland Committee. Much water has gone over the dam since last year at your meeting. I feel that aviation itself has progressed by leaps and bounds since then. Manufacturers are working twenty-four hours a day, and airline operators are going ahead beyond the wildest dreams ever expressed by any one of us. When one realizes that on one airline alone with scheduled operation of 1,600,000 miles, 99.9% were completed in the first six months of this year, it is a remarkable feat. I would like to see what other medium of transportation can anywhere approach it when all factors are taken into consideration. Another airline has expanded its express business alone over 100% in the same six months. This business is mounting up, and since our last meeting it has been wonderful to see the progress which has been made.

The Copeland Committee, if it has accomplished nothing else, has done a big job in educating senators and congressmen, as your President has just given us credit for having done. I feel that five members of the Senate will return next year with a united front for safer, better aviation; and these five will constitute a well-informed wedge when the Congress gets down to actual legislation. I believe that aviation has not had a more powerful friend than the chairman of the committee, Senator Copeland, a man who has understanding to the nth degree, and one who is giving his almost undivided attention to aviation.

As for the work of the committee, I believe that I am not violating any confidence when I state that we succeeded in getting action on the last day that Congress met on only two of the twenty chapters reported. Personally, I think we were fortunate to get those two through, although I regret that they were the two that might be termed destructive chapters in the whole report.

I am frank to say that we found the work of the Federal Aviation Commission well done, but I think our committee has a better chance of getting its findings crystallized into law than has

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any layman commission. There are five leading senators on the committee, and they should be able to get somewhere.

I cannot proceed without expressing gratitude on behalf of the committee for cooperation given us by members of your Association. I cannot name a man from your worthwhile organization who hasn't cooperated with the committee. I want to say that many members, from your president, Mr. Sheriff, and particularly Mr. Fagg, right down to the many aviation officials, have been the ones who did most of the foot-slogging apart from that done by the chairman himself.

It is important to keep government officials and laymen alike up-to-date on the subject of aeronautics. The day before yesterday one of the wildest dreams of General Mitchell came true—the dropping of military men on the other side of the enemy line in maneuvers—turning the flank in the third dimension by dropping 4,000 men with machine guns and landing 2,000 airplanes on the other side of the line! What a challenge to civilization! A departure from age-old military tactics—the desire of all strategists—turning the flank but now accomplished in the third dimension by aviation. This may well revolutionize military plans to such an extent that all present war plans can be thrown away, and we will start over again, possibly setting up a better, more humane and less costly defense for our people. If that is true think of what is ahead. Think of the responsibility which rests on the shoulders of the federal government and on you state aviation officials.

But the momentous problem of aviation cannot be attacked without enlisting every possible source of help. That is why I think the National Aeronautic Association has such a responsibility and such an opportunity. It is the one organization, representing as it does different nation-wide interests and factions ever ready and willing to extend a helping hand and give an encouraging word to the layman and to the Congress, which can accomplish and do things. That organization must be built up; it is the one which can speak without prejudice but with weight and influence as no other can, being composed as it is of unbiased patriotic citizens who are impressed with the importance of aviation in this country. The units throughout the country in state aviation whom you represent here should not only carry on the routine of inspection and regulation, but assist the federal government in another great duty through the Bureau of Air Commerce charged with the responsibility of fostering aviation. You should crusade for it and all that it means to the tax-payers and citizens.

I hope that the information on state laws prepared by Mr. Fagg for the committee and published as Aeronautics Bulletin No. 18 will be sent into those states where there are no aviation commissions at the present time, so that we can get something of stabilized control in every state for the mutual benefit of this country and the individual states themselves.

As to what we intend to do in the future in the Senate Safety Committee, that is difficult to say. We are going to have more hearings. There are some witnesses who will go even further than have those on record to date; and it will all be constructive criticism.

This is the message I have, and I can only congratulate you on the good work done during the last year, and on the interest you are obtaining. When you visited Washington last January, we were all assured there would be recognition of your most important organization. I know that Senator Copeland hopes that promise was kept. There might be one or two other words I could say about this subject. We must lift our eyes higher when looking at the horizon of money. This aviation business is expensive. If you are going to travel from New York to Los Angeles over night, it is going to cost money. I know that too much money might breed inefficiency in development, but I believe we can rely on the private initiative in the United States if there is just a little more money as an incentive for production, research and experimentation. You have a very sympathetic Congress in Washington. It will go along with you very far provided you are logical and sound in your presentation of demands. I hesitate to suggest that you ask for twice what you have before, but I would suggest that your demands be much higher than ever before—especially with your state authorities. American aeronautics needs it; safety demands it.

OVER-WATER FLYING AND SEAPLANE BASES

DONALD D. COOKE*

I hoped I would get this opportunity to say something to you about water flying and seaplane bases and, in anticipation of it, have written down some things which I want to get over to you; and, with your permission, I will read them.

Water flying has been slow in developing up until recently for a lot of reasons. Ever since the beginning most of our manufacturers have never paid much attention to building or selling seaplanes. This was perfectly natural because they were interested in getting production and the land plane field has offered and no doubt will continue to offer the biggest market. In addition, a large number of our manufacturers were located in the middle west far from any water that could be used to fly off of and couldn't be expected to take much interest in or follow up that end of the market. As a consequence, when some of these airplanes were used on the water, a large percentage had mediocre performance and gave considerable trouble because they were not properly protected against corrosion, especially on salt water. Coupled with a lack of storage bases and points where fuel and oil could be obtained, these drawbacks quite effectively discouraged all but the most enthusiastic of the private flyers and the commercial operators who persisted in spite of them. The flying boat has for all practical purposes passed out of the picture with the exception of the large transport. The amphibian, however, is still with us and going strong despite the fact that practically none has been built for at least five years. The amphibians which are being operated today are expensive pieces of equipment, expensive to operate and of inferior performance but, of course, are not entirely dependent on the existence of seaplane bases although their usefulness is restricted. This in itself speaks a lot for the attraction which water flying has.

But let's see what has happened in the land plane field. The network of airlines in this country has been extended until today one can go by airliner almost anywhere a land plane can go and he can go cheaper, faster and more comfortably than he can in his own

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plane. Besides, after the weather has turned bad, he doesn't have to stay with his airplane until it clears up. The private land plane and the charter land plane have, therefore, for most people, been removed from the category of a utility. The private land ship remains as an instrument of pleasure and sport but, as such, it is reasonable to assume that it has a market which is considerably more limited than would otherwise be the case.

So the problem as I see it is to make the airplane more useful and one way to do this is to convert it to a seaplane.

Suppose we now consider what the seaplane can do for us and what we can do with the seaplane. The chief advantage which the seaplane has over the land plane is, of course, its ability to utilize safely almost any area of protected water for landing. In country where seaplanes are useable, we usually find water just where we want to land. Other advantages are its comparative safety in the event of forced landings due to weather or mechanical troubles and the fact that less skill is required to land it and take it off. No small consideration is the added pleasure and stimulation to be experienced from flying low over the water quite safely and the smoother air which is usually found there. Its disadvantages are its somewhat inferior performance, the greater maintenance required and the difficulty involved in hauling it in and out of the water.

To take full advantage of the ability of the seaplane to land where one wants to go, we must get used to the idea that it can be left safely overboard and moored in reasonably protected water. In these days of flaps, heavier wing loadings and corrosion proofing, I am confident this can be done; and if this premise is allowed, a much larger and intensely interesting field opens up for the water flyer He can put down a mooring in a sheltered cove convenient to his summer home or he can pick one up at the nearby yacht club which, very often, offers sufficient shelter. No longer must he go only where a ramp or hangar is available. He can have his seaplane nearby when he goes off on weekend trips and he will find that, instead of putting it in a hangar and leaving it there until he is ready to go home, he will be using it every day to go fishing or call on friends or go on a picnic or to some distant island for a swim. He will be getting some real pleasure and use out of it all the time and not just while he is flying to and from his home in the city. It is not difficult to visualize a development in the use of seaplanes much along the same lines as that of the fast

motor boat. They have much in common but the seaplane would seem to have considerably more utility.

There are still other reasons why it is reasonable to expect the use of seaplanes to increase. On account of its greater safety and less skill required to fly it, it is likely to appeal strongly to the man of means and responsibility between the ages of say forty and fifty who could never be induced to go to an airport to learn to fly. He can take his seaplane and an instructor and go off where there is no one to bother him while he practices landings and take-offs. After all, this is the type of individual who can afford to buy an airplane and whom we want to get to fly and keep flying. It is not entirely sound to suppose that the present generation of young people will learn to fly today and be buying and flying their own ships tomorrow. It is more likely that the successful man of tomorrow is too busy working or hasn't the time or the means today to learn to fly.

I have taken the seaplane as an example. The same arguments, however, apply to amphibians equally well. Of course, if we are going to leave our ships overboard, we must guard against corrosion. Most manufacturers today have developed standard corrosion proofing treatments which they will give new ships and which are quite effective. It is no longer the worry and the headache that it once was and every day these airplanes are getting better and better in that respect.

All this sounds like a sales talk but what I am trying to bring out is why and then how we should help waterflying get under way. As a matter of fact, it already is underway. During the last two years in the New York area, there has been a remarkable increase. This can be attributed largely to the construction of two bases on Manhattan Island in the East River, where it is possible to land and take on passengers and it is reasonable to expect that this increase will take on added impetus as additional facilities are made available. The construction of storage bases at strategically located points and fueling facilities pretty generally scattered around are without doubt the important need and the opportunity is open to us to proceed with such a program now under the W. P. A. Storage bases should be located in or near large cities, preferably on or in connection with the airport, and should consist of a marine railway or fixed ramp or both, landing floats, a mooring or two, hangar and dollies. The marine railway makes the best device for hauling out a seaplane and it is recommended for bases where it would be used rather regularly. On the other hand, it is not

suitable for amphibians, but if the base were adjacent to an airport, the amphibian would land on the airport. In some cases, both a ramp and marine railway would be desirable, such as when the nearest airport is far distant. In that case, amphibians as well as seaplanes could be stored at the base. If the base is located on an airport, the existing hangar facilities, of course, can be used and the combination makes it possible to change over from floats to wheels and vice versa. The base would be used for repairs, engine checks and storage for extended periods or in times of bad weather.

Bases consisting of landing floats and moorings only should be located near the center of cities and towns. They will serve to land and take on passengers and fuel. Arrangements should be made with a nearby gasoline dealer to carry fuel and supply it when called upon to do so. Such landing floats are useful to all types of boats as well as seaplanes and altogether from the town's point of view make a desirable public landing.

The Bureau has prepared a design for a marine railway, which will serve as a guide and can be modified to fit most any location. It has also prepared designs for landing floats. Both of these designs are available to sponsors. In addition, if the details of the location are available, the Bureau will make a suggested layout and consult in any other way possible.

Some progress has been made to date. In addition to the two terminals which were built in New York City with the aid of Federal funds, but which were built before the organization of the W. P. A., the City of Newark has a storage base about completed with the exception of the hangar. It includes a marine railway, landing floats, concrete apron, dollies and hangar. The City of New Bedford, Mass., has a project approved for a terminal consisting of a 75 ft. turntable ramp, landing floats and a passenger terminal building. In Maine, ten projects for landing floats in various towns have been set up and approved and they will be built this winter when labor is available. Connecticut has one and New York has one. Several projects are in the process of being set up in New York and Wisconsin. There is definite interest among the flying fraternity in getting storage bases in Buffalo, Detroit, Chicago and Seattle; and it is hoped that something real can be accomplished in those cities.

PROBLEMS CONFRONTING THE AIRLINES

EDGAR S. GORRELL*

I feel rather humble to stand before you when I see people here who know so much more about this subject than I do. However, I am delighted to be here today for two reasons. First, I feel that you, who are in this business, are in it because of a love for aviation, and that gives me the feeling of being a kindred spirit. Second, because I have heard rumors to the general effect that some of the members of your organization feel that the airlines are working against you. I have tried to find out how much truth there is in the latter thought. Never once, in traveling from two to ten thousand miles per week, have I heard a single word against any of you gentlemen or your organization. Everywhere you are praised and lauded for the work you are doing. The airlines are proud to be counted as your best friends. We are very grateful for your help for aiding us in building up the volume of our traffic and for likewise aiding us to formulate and carry out a practical plan of airway traffic control. You have helped in the national airport program. Everyone is grateful for your help in the laying out of this plan. In general, the things for which I came to thank you, I find in the booklet containing the speech of your president. May I say that it makes me rejoice to know that your organization, and every organization in aviation, are thinking along the same fundamental channels.

In your president's speech, he rightly places safety in the air as point number one. There can be no argument on that subject. Point number two is the WPA airport project. The WPA is doing for this country a job that could not be done by any other governmental or commercial body. We can be duly thankful for the splendid work being accomplished by the Department of Commerce, the WPA and you gentlemen. Point number three is airway traffic control. There is no debate about that. We have just as much need of control of our airway traffic as has any other medium of transportation along its lanes. We hope and pray that the next session of Congress not only may grant a continuance of this airway control in the eight cities where it is now being estab-

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lished but will also include several others. Traffic in the air is becoming congested and this control will need to be extended. Point number four concerns a standing Committee for Aeronautics in both the Senate and the House. Aviation has been investigated at least once every year since the War. Whenever we appear before an investigating committee, the members thereof need education along aeronautical lines. One must educate and reeducate due to changing personnel. Only a small group of congressmen receive this education at any one time. Possibly those men are not reappointed to committees or reelected. There is, therefore, no continuity whatsoever in the committee education that we give from year to year. These representatives of the people should have overlapping committee terms, so that, as one group passes out, two-thirds will remain on a committee. A bill foreseeing this has been introduced into the House, and another of the same sort into the Senate. In point number five you have the laudable remarks concerning the recommendations of the Federal Aviation Commission.

There is still one point to be brought out. The airlines have reduced their losses about 50%. In the last fiscal year the airline losses were $4,000,000. This current year they are under $2,000,000. I am hoping that by December they may be at the rate of under $1,000,000 per annum. I believe financially the results should improve each year.

The shipping industry faced a problem similar to ours in 1916. The railways faced the same problem. I am referring to the anti-trust laws. In 1916, Congress passed the maritime act creating a Shipping Board. The shipping companies were thereby permitted to get together and submit their conclusions to the Shipping Board. If the Shipping Board believed the conclusions to be sound, and so wished, it could approve them and thus grant exemption from the anti-trust laws. The railways may file an intended action with the Interstate Commerce Commission, and thereby become exempt from the anti-trust laws when approval is granted. It was never intended by the Congress of this country that common carriers by air should be prohibited from reducing their overhead and eliminating useless waste. However, whenever we attempt to accomplish those same laudable purposes, as the railways and the shipping lines may accomplish, we come up against the anti-trust laws. We hear more complaints for not putting a stop to different destructive sales ideas than we do praise for the good things we have done. We hear questions as to why we do not alter this and that. The answer is, we do not dare unless we wish to face a term in jail. We hope if we

get the Federal Aviation Commission that it will be modeled along the lines of the Shipping Board and that then we shall be able to reduce our overhead. I do not see much hope of getting into the black ink unless that can be done.

Last week, when I was in Cleveland before the Postmasters' Convention, I was asked how large I felt this business might become. I replied that aviation is larger than all of us. Our thoughts, our hopes, our ambitions, and our dreams of what aviation may become are still ahead of us. Marshall Joffre, when speaking of aviation in 1917, urged, when making plans for aeronautical developments, that one should be sure to make them beyond one's wildest dreams and then multiply the results by ten, and that the results would even then still be too small. For example, we have today facing us the problem of hangars heretofore built large enough to accommodate the planes as we saw them built a few years ago. Yet, in 1938, they will not hold the planes which are now being constructed. Laws should be made on broad terms so that they will not handicap the growth of our industry.

This map before me shows the growth of scheduled aviation throughout the world. Many, many other lines could be put on this map, but they are not officially known as scheduled airlines. I know of at least twenty-nine such lines in Alaska. And that is what we find elsewhere. There are about one hundred and nine air contracts in the United States, yet I know of only twenty-four officially scheduled. The big thing to notice is that there are airlines being constructed everywhere—Asia, Australia, Alaska, Canada, etc. Some go nearly to the North Pole. One outstanding point in that map of the world's airways is the great expansion which is brought about by politics and for military reasons mainly by European countries seeking to get a closer hook-up with their colonies. Military reasons are the main ones for the expansion into and through Siberia. There are 261,000 miles of airlines outside of the United States. Of that number, about 40,000 are flown by Pan-American and about 27,000 miles of these come under the American flag, the balance being under corporate structures incorporated in the countries in which they operate. There are 104 foreign companies depicted on this map outside of the United States, and three American companies. The scheduled airlines operate under forty-seven different flags.

At the beginning of this century, the fastest possible means of round-the-world transportation was 60 days, 13 hours and 29 minutes. Now one may go over the same route in 16½ days. One

starts from New York and goes to Europe by way of the German Zeppelin, then by a German line to Holland, then by Dutch line one arrives in Penang and makes an air connection to Hongkong. Thereafter one proceeds across a 700 mile gap of water to the Philippines, and takes the China Clipper to California and from there an American airline back to the starting point.

We are ready now to connect the United States with Europe by means of an heavier-than-air line. One certain person has delayed our doing so, but we are looking forward to flying on regular scheduled operation in the very near future. The only portion in this world trip not hooked up is the space between Macao and Manila. It seems as though we may shortly overcome that defect by having a Chinese line flying to Macao and connecting there with a regular Pan-American service.

As I looked over your program today, I noticed that much of it ties in with the first point mentioned, that is, safety in the air. A statement was made today that the function of any government is to govern. If that be true, then certainly the second duty of any government is to protect the lives of its nationals at home or abroad, on land, or water or in the air. If we have a number of wrecks of steamships, there is immediately a clamor for investigation. We had the Morro Castle and the Mohawk disasters investigated. The beneficial results of that investigation were embodied in the 1936 Maritime Act, which attempted to provide safety on board our ships. Congress has legislated to give us markers along the seacoast and for travel along inland waterways. In Chicago harbor there are more safety signals for motor boats than there are for airplanes. This whole result is based on marking water ways for shipping. One point that our Congress has failed to grasp is that the air is nothing but an ocean. It is the only ocean that is navigable to every point of the earth's surface, whether on land or on water. If we keep in mind that the air is an ocean, and apply theories marking that ocean just as we do to marking oceans made of water, we would have properly marked airways. Take horizontal types of marking and turn them to the vertical, and you have the same principle for marking traffic in that great ocean called air.

Our nation has been both interested and generous in the building and upkeep of highways for land traffic, that is land traffic in the way of automobiles and horsedrawn vehicles. Every congressman is familiar with highway problems in his district because of the interests of his constituents. However, but very few of our

representatives have ever realized that the highway in the air can and should be equally well defined as the highways on the ground. Those on the ground are made and marked with concrete, etc. The highways in the air are marked with radio energy. A man sees a concrete road and stays on it; in the air a man follows the radio road with his ears. The man on the road follows with one sense; and the man in the air follows with another. We have marks on concrete roads to show turns, where to slow up, soft shoulders, etc. We need marks in the air that will define equally well these air roads and show where the ground is.

We have 28,000 miles of federal highways. About 5,000 miles of these roads have no markers. In going over our needs a few months ago, we tried to put on this second map, what, in a general way, we need to make the airways as safe as a concrete road on the ground. Forgetting the question of airports, which the WPA is ably handling, it will require about $14,000,000 to bring the airways to normal construction. If we are not going to make them "bullet proof," and only take care of the spots we really cannot do without, we come to this other map, which would require approximately $5,000,000. Of that $4,750,000 is for radio. A small amount of it is for lights, and actual physical labor.

Incidentally, while on that same subject, I have here a map of Alaska. We have inquired into Alaska to see what airway aids our country needs for commerce and for national defense. This map shows the need for about $2,959,000 for Alaskan airway projects.

The question is, how to get the cash to construct these airways. The House committee wanted to make the airways safe. They publicly announced they were in favor of such an appropriation. The House Post Office Committee actually went so far as to say they were in favor of this $14,000,000 appropriation. The Senate Investigating Committee made this same comment. The Senate Appropriation Committee on April 8th went so far as to say they would bring the Budget Director into the meeting to put through this appropriation. Unfortunately, it failed to pass. The responsibility for this failure to pass Congress rests solely on one man.

If you will stop to think that these airways of ours go into forty-three states, and Alaska, Puerto Rico and other territories, you will realize that our needs for airway expansion follow our flag wherever it flies. You will also realize that they go into most congressional districts. This is not only a national problem, but it is a problem which fits in with the desire and needs of every sena-

tor, and the desire and needs of every congressional district. I am quite certain that no congressman and no senator, when educated to these needs, would be negligent enough to forget them. Even during this depression there was no controversy over appropriations for highway building. The last bill went through for $400,000,000. No representative voted against it because the roads went by every farm and village. The question of roads in the air is just as important as that of concrete roads. We should receive the same political reaction.

About 1890, the Secretary of Agriculture was getting so many requests concerning dirt roads that he did the best he could to encourage the building of them. Finally, inquiries became so numerous that he created, without any law of Congress, a Bureau of Enquiry Concerning Public Roads. It started with a staff of two men and one girl, and has since grown to become the tremendous Bureau of Public Roads, spending $400,000,000 a year. It has given us the finest system of surface roads anywhere in the world. I wish that those some inspirations, be they commercial or political, would inspire our congressmen and senators to take the same viewpoint, especially at the present time, when the question of appropriations for airways comes up. If they voted us only $14,000,000, it would represent but a four-day appropriation for surface highway construction. As time goes on, we will need more airways, and if we have a line-up such as for public roads, we will get the cash for necessary expansion.

Airways are needed for four reasons. One, of course, is safety. The second is efficiency. We are not saying to you that the airways are unsafe, because when weather conditions are unsafe, we try not to fly. But we do need them for efficiency. The scheduled airlines will never reach a point of perfection until we can depart and arrive on schedule regardless of weather. To do that, we need the aids to take off from and bring us down to the ground safely. The average traveler has but two fears—how he is going to get down, and whether or not the ship may fall to pieces. The question of how he is going to get down is a question of aids to get us down safely. Ships no longer fall to pieces.

Point number three is that the law says the outgo and income of the Post Office Department must be balanced by July 1, 1938. Some of our companies are running at a loss, and some at a profit to the government, but the composite financial result is still a loss of $3,000,000 a year to the Post Office Department. If the lines could only fly 100% instead of 95% of schedule, we would get

that extra volume of business which would more than tend to bring up the income to balance the outgo. All we are asking is a chance to make a normal profit. The so-called subsidy in the domestic airlines is about $3,000,000. Last year, I think it was $2,980,000. I believe the British get about $7,500,000, the French $9,000,000, and the Germans get $14,000,000. You can see the domestic lines are receiving comparatively little from our government.

The fourth reason we need these airways completed is for national defense. The first activity of our Association was not to try to make money for airlines. At the beginning of 1936, there was no mobilization plan for our airlines. Our first job was to help the government work out such a plan. Suppose now we had a splendid air force in this country, and we were attacked on both coasts. When the war starts the navy will be in one ocean or the other. The country will need to depend upon its air force for protection on at least the opposite coast. Such cannot be done from a military angle without a considerable perfection of our airways. We know from past experience that there must be certain military highways over which motor vehicles can go. In this modern day, we must likewise build air roads to carry out the different air activities of national defense.

We have twenty-two domestic scheduled lines, of which twenty carry the mail. Our domestic volume of business during the last fiscal year was $25,000,000, but our stockholders lost $4,000,000. So far this year, comparing the figures for the first six months, our mileage flown is 18% greater, and our passenger increase 29%. This year, it looks as if express may reach five million pounds. Our mail load is 36% over what it was last year. This increase has brought upon the airlines the need for an additional capital expenditure. We are planning to expend $15,000,000 additional for equipment. The demand for mail, express and passenger transportation is larger than we can handle in many cases because our planes are not large enough. We are air mail carriers, and if we have too much mail, we have to drop off passengers or drop off express. You may see an airplane going out of Newark to Chicago with six seats empty. More passengers are refused because of the heavy mail load. There is no way we can make any money on a proposition like that. Speaking of our loss for last year, we hope and we pray that you gentlemen, when studying the law, may see how unfair it is to have such a large percentage of the weight we can carry taken up with mail for which we receive no pay. The maximum rate for mail pay should be altered so that a company

can be paid for the service it actually renders. There is no reason why, as the airplane business is built up, the government should not pay for its legitimate increased use of it.

Incidentally, in speaking of the question of the help you can give, there is one point where you can help the War Department. There are probably more false rumors in aviation than in any other business you can mention. Many, many lies are told about our participation in the World War. There are only three books in which you can read the truth of our real wartime activities. One is an official history of what our Air Force did in Europe. We required a history of each unit to be written beginning the very day of the Armistice. That history went to the vaults of the War Department. Since then it has been more or less scattered. We are pouring out $80,000,000 or $90,000,000 a year to build up an air force. The studies of present day air officers are almost entirely theoretical. In the World War only one man saw everything happen. No one else had an all-round experience. Today, air officers are taught on the "theory" of what they thought might have happened. The War Department is going to ask Congress to publish that history. If you gentlemen testify before Congress, you can help considerably if you recommend this. We spent $594,000,000 to fight the war in the air in Europe. There is no reason why we should not know more about the history of this expenditure. What happened in Europe should be known, because the past is but a prologue to the future.

AIRPORT CLASSIFICATION

JOHN S. WYNNE*

Airports have been a matter of continued importance and controversy for the past three years. You gentlemen have played a very important part in its activity and we have shared responsibilities, disappointments and achievements together. Because of the fact that to some of us it is becoming an old story, I would like to devote a portion of my discussion to matters which have nothing to do with the construction of airports or the procedure in obtaining federal funds for the purpose of construction. It is my belief that the past year has witnessed an improvement in a mutual understanding of the problems confronting us and a more cooperative coordination in obtaining those results in which we should all be interested. There have been differences of opinions but I feel such differences were largely misunderstandings on the part of one party or the other and the purpose back of them constructive.

Last year it was promised that a steering committee on airports would be appointed by your organization to contact the Department of Commerce on questions involving policy or procedure. I am sorry that this was not done and I appeal to you this year in the hope that such a committee can be immediately appointed, composed of eastern representatives to work with the Airport Section on ways and means to assist each other in the promotion of airport development. Eastern representatives are preferred because of their accessibility to the Department headquarters located in Washington and it is believed more contacts can be had with less expense to the Committee members. In this connection please bear in mind that the Airport Section has never had more than a maximum of twenty-one field representatives at one time, and a small headquarters staff in Washington, whose mission it was to approve, revise if necessary, and pass upon all airport projects throughout the United States. Four hundred and thirty-nine projects are actually under construction but an additional six hundred were passed upon and visited by these same individuals. These men not only had to visit sponsors of the projects, but contact state and regional WPA officials, in addition to state aviation officials and Chambers of Commerce. Is it any wonder that at times it may

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have appeared that their contacts with the state aviation officials were not often enough or close enough? The program today averages twenty projects per man, widely scattered and requiring at least one visit a month. You can readily see the coverage problem involved.

I understand the WPA representative will take up with you the important matter of Procurement as pertains to this program. It has given considerable trouble in recent weeks. Your members can help in this direction, as the procurement of materials is the responsibility of the Treasury Department whose field offices are unfamiliar with our problems and needs.

Chambers of Commerce have been very active in the airport program. In some instances they have been most helpful, in others most unreasonable, in all cases persistent. I do not know how much you State Aviation Officials work with the Chambers of Commerce, but they certainly are a factor important enough to receive the attention of both State and Federal officials. We should acquaint them with our duties, responsibilities and sound principles.

It may interest you to know that the Department of Commerce is about to recommend that all airports being used by scheduled airlines will be required to qualify for a certificate of suitability for the operations involved, or scheduled airline operations will not be permitted. Present plans provide that an airport receive a certificate of suitability awarded on the basis of minimum specifications and a number of other factors to be announced later. It is the duty of the city holding such certificate to maintain a minimum standard of efficiency of its personnel and facilities if it desires to hold the certificate which will entitle it to be used by the airline operating over that route. There are one hundred and eighty-nine such fields involved at the present time that are actually being used by airlines. The certificates will be divided into three groups:

Class A: Terminal field with certain minimum requirements;
Class B: With lesser minimum requirements;
Class C: This class will largely fall within the jurisdiction of State Authority.

All of these fields will be usable or restricted, as the case may be, in accordance with the plant and facilities offered. When you receive a pilot's license you are told on the license that you are permitted to fly certain types of aircraft and restricted as to other types, unless you have qualified to fly same. In much the same manner, the "airline airports" will be inspected to determine what types of air-

craft it can accommodate safely day and night and under what weather conditions, depending on the facilities offered as well as the type of aircraft that might be used.

In this connection I desire to call attention to something which I think has been badly overlooked by us all in recent years. I believe the status of the Airport Manager should be defined and dignified in the scheme of aeronautical things at this time. Here is a man who has charge of hundreds of thousands of dollars of property, in many cases millions of dollars, and is running a plant wherein the lives of the human public are at stake hourly if such plant is not conducted and maintained properly. It would seem only fair that this individual should be registered as to his qualifications and competency. He should be licensed in the same manner as the pilot who displays a certificate of competency. If such an individual did not possess qualifications, to be agreed upon later, he should not, in my opinion, be hired and put in charge of an "airline airport," any more than a pilot of unknown and unregistered ability could take a plane out on scheduled airline operations. I believe it only fair to the qualified individuals involved that they be protected in the same manner as the pilot as to their competency and authority. It will be a worth-while safeguard and control in the handling of scheduled airline operations and commercial charter and sight-seeing activities being conducted today.

THE WPA AIRPORT PROGRAM

W. SUMPTER SMITH*

I am going to try to confine my remarks strictly to the WPA program. First of all, I would like to give you the relationship between the WPA, the Bureau of Air Commerce, and the state aviation officials as we see it, and then will tell you a little about the WPA program so far as it applies to aviation.

The WPA program is strictly a relief program, and the first rule and order that we have to carry out is the relief angle, and that is putting men to work, and that one fact will answer a lot of questions as to why we can't get this or that done. So you have to keep that in mind because it is something we can't change. About a month ago, the Engineering Department of the Works Progress Administration, the Construction Department, was reorganized into five major divisions, more or less along the classes of construction that were included in the 1936 Appropriation Act. There is a director at the head of each division. Airways and Airports is a separate division, and everything pertaining to such projects comes under that division. Frankly, our job is to salvage from the depression as much useful work on airports as we possibly can, in the use of labor from relief rolls. As you probably know, the communities have to certify the people who are in need of relief. They certify them as employables and unemployables. The local community has to take care of the unemployables. A certain percentage of employables are offered jobs on the federal work program, by far the greater number being with the WPA. That doesn't mean that all the employables can be put to work. The 1936 appropriation is to cover all relief agencies. The WPA has in sight approximately enough money to run to about March the first, carrying approximately the same number of employables as are employed at the present time. Possibly you may have 15,000 employables certified in a certain community, but the funds allotted to that community are only sufficient to take care of 10,000, which fact will answer many questions as to why a man who is on relief cannot get a job on WPA projects.

There is another angle to the employment of men on airports. Our job, as we saw it in the Division of Airways, was to have some

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kind of a plan. We had to have some sort of an outline to be used in guiding the work on airports. You must, however, realize that communities themselves originate these projects. It is necessary for the local community or some political sub-division to initiate and prepare an application requesting the project. Many times there are so many projects applied for that they could not possibly be put into operation. Even those finally approved amount to five times as much as the available funds. So far as possible, we leave the selection of projects to the community. In fact it is necessary to do so in order to select a list of projects that will take care of the required number of men, allowing them their quota for the community. We have to mark these projects in order of priority. You can see quite often what happens. An airport may not be on the first list, depending entirely on the local efforts of the air-minded individuals, or the airport may be the top priority.

Another angle is the so-called man-year cost—just the amount of funds required to pay a worker for a year at the security wage, and also buy sufficient materials and rent sufficient equipment to keep him employed in a useful manner. That is arrived at quite simply—divide $1,425,000,000 by 2,000,000 men, and you have $700 available per man year.

I think everybody will agree that an airport is not worthy of the name without shelters and other facilities. These facilities require a large portion of skilled labor, and that will run the man-year cost up, and as you may have possibly experienced, some sponsors have had a hard time getting an airport project in operation. There are two ways you can get around that problem. The district WPA has a certain amount of money. The local community can contribute from its funds enough to bring the man-year cost within the allowable limit, or if the community cooperates with the WPA and submits a varied group of projects, so that the average can be brought down, the Administrator, if he considers the project desirable, can go ahead and build it, even though the costs are considerably more than the average man-year cost. In some instances it has been possible for cities which had a definite source of revenue, and wanted to make a lot of extensions to the water mains, or some other such project, to give a greater proportion of the cost, which made it possible for the airport project to be put into operation.

I would like to stress the point, and amplify it a bit, that this program is strictly, we hope, a temporary and emergency program, and we will work ourselves out of a job as soon as possible. The

Bureau of Air Commerce is a permanent federal institution charged by law with fostering and developing this business from a national viewpoint. To my mind the State Aviation Commissions hold exactly that same relative position in the state. One has state interests and the other national interest. We (the WPA) are simply filling in, and acting more or less as a banker in this particular case, and where a community can present the necessary collateral which is certain funds, suitable sites, and the need for employing employable relief workers on some construction program, we have also been the contractors. The Federal Bureau of Air Commerce and the State commissions are the consulting airport engineers.

There is a point here I would like to stress too. There have been cases where there has been conflict between the federal and state interests. I think you can appreciate the fact that the WPA is federal, and that it is necessary under the present set-up to have some sort of federal agency to look after the technical features of the program, and that is why possibly the Bureau of Air Commerce is given preference over the wishes of the State Commissions. Of course, it is our object not to have such things come up, but it is probably the same situation as would result if the State were carrying on these projects, in which case the State Aviation Commission would take preference over the local Aviation Committee. I stress this point because I want you to realize that we do not expect to be in business for any great length of time.

So far as airports are concerned, under present conditions we are right now at a critical period of the program. The present appropriation is limited to July 1st of next year. That gives us nine months in which to work, but our funds under present conditions will only last until about March 1st. We don't know what the political situation is going to be after November 3rd. Everybody has his own idea. We don't know what Congress is going to do about carrying on this program. Therefore, we are bending every effort in the remaining nine months to complete all the projects that have been started. We want to complete them in full if possible. The program is not perfect, and you will have a lot of loose ends. We will make an honest effort, and we need the help of both the Bureau of Air Commerce and the State Commissions to give us every possible assistance to clean up these jobs, and put the airports in useful condition just as quickly as we can. That does not necessarily mean no additional projects, but it does mean that state administrators have orders not to start any unit of any project unless they have funds in sight to complete the program. If Con-

gress should decide to extend this program, that is something else, and will give us time to plan in the future. That is mainly the reason we have asked for a program, and perhaps to some of you sitting here this afternoon, it perhaps seems rather ridiculous to ask for a plan. We have asked the Bureau of Air Commerce to give their recommendations. We want both so that we can concentrate during the remainder of this program on the projects you think most important. You can appreciate that there were a number of projects which should never have been built in the way applied for. There were over 1800 airport projects approved. Of that 1800 we have actually released for operation a little over 600. They are being operated on some 450 locations. You will be interested in knowing that out of 450 locations, 65 are new locations, 75 are airports that were started during the CWA and the FERA, but were not included in the Bureau of Air Commerce list of airports for 1936. The bulk of airport work is being used to extend the existing facilities. The question comes up of constructing aids to avigation, beacons, radio stations, etc. If you will just remember that this is strictly a relief program, you will understand why we cannot undertake a lot of such projects even though, as everyone knows, they are absolutely necessary to the safety of flying. If the sponsors are willing to transport the labor, and if they can find through other federal sources or local sources, sufficient funds to bring the man-year cost down, something can be done about it.

Mr. Wynne mentioned the fact of procurement. That is one of those situations that comes up in this type of program. Those of you who have been following this work for some time, know that during the CWA and FERA there were different methods used. During the WPA Congress decided to use the Treasury Department and have local Purchasing Agents and Disbursing Officers. That means such an officer in each state and district of the state. Their jobs are to take requisitions for materials and advertise for bids and buy the material. I will grant you it is not the best working type of arrangement, but it is necessary to have every possible safeguard on the expenditure of federal funds. If you wish to complain about a particular job, get in touch with the local WPA representative or get in touch with us. We have a special section set up in this reorganization with a man who works with the procurement section in expediting these particular questions, and of course he only works on those he knows about.

I have touched on the relation of the three organizations, and I would like to add this further thought that we are working to this

end—that if we fold up the WPA next spring or summer, we expect to have this time a complete record and file of work that has been done—cost figures, and other pertinent data, and all the recommendations and data we have accumulated, which we intend to turn over to the Bureau of Air Commerce. Any state aviation commission that wants a copy of that data will be entirely welcome to it.

There is one plea I want to make to everybody. I think it would mean more to aviation as a whole, and give us more of a chance to expand at least the ground facilities, if we make a success of this present program, and the only way we can make a success of that is to complete usable units of airport projects under construction. That means the necessary plans, specifications, and working drawings must be provided to the WPA supervisor in order to carry on the work. That is the greatest help you can give during the remaining part of this program.

There is another point I might mention. It is unfortunate that we haven't been able to complete some of the jobs started under the FERA and the CWA; some because they could not qualify, but mainly because the sponsors did not have the funds with which to acquire the land. I appreciate that you may think it unfair to leave the jobs in that condition, and may consider it a breach of faith in some respects, and while it is particularly hard on certain communities, it is another case where you have to consider the welfare of the whole, and as a matter of policy it was determined that we could not work on anything other than public property in this program.

I want to pay a tribute at this time to the work that has been done in the field by state aviation officials. While you may not have felt an official connection with the program, we have relied on you as much as we possibly could and you have played a vital part.

I want to close with this one thought—that the ideal situation so far as ground facilities are concerned—would be to have a map of this country showing the civil airways following the density of traffic, showing where aids to avigation are needed, together with preliminary plans and specifications from which a future program could be adopted, maybe not to complete the whole system, but at least to fill in facilities at the points most needed. Thus, whatever work would be done would fit in with the prearranged plan and be of the greatest benefit to the country as a whole.

FEDERAL-STATE COOPERATION

EUGENE L. VIDAL*

I appreciate this opportunity to participate in the round table discussion of State-Federal Cooperation in aviation scheduled by the National Association of State Aviation Officials. At this time I prefer to generalize but briefly since the Bureau of Air Commerce is represented here today by various of its unit officials who will later discuss in detail beneficial methods and types of cooperation between the two organizations.

Why should there be a discussion of cooperation between the States and the Federal Government at this time? There are several reasons, in addition to the natural desire and necessity of coopeation between States and the Government in any line of endeavor.

In the first place, steps towards closer cooperation should be expedited because private and miscellaneous flying, with all its attendant phases, once more is experiencing a rapid growth. During the past few years, new licenses in the form of student permits, have increased from some 8,000 to approximately 27,000. Manufacturers of light planes this year have almost doubled their production over the same period last year. Hundreds of municipal airports are being constructed or improved. Next year holds forth a promise of even more extensive private flying activities. In fact, the next development to expect is the introduction of mass production of private aircraft. Thus, in order that we may keep pace with such increased activities, we must combine our efforts and facilities.

It appears inevitable at this time that a near future cooperative study covering future regulation and promotion of other than interstate air commerce should be consummated. The contemplated growth of this phase of the industry will naturally develop a most serious and practical problem for the Bureau of Air Commerce in its present efforts to provide facilities for enforcing regulatory measures for the private flier and his airplane. This problem can only be solved with open minds and an unselfish motive. I personally feel that the Federal Government will be forced to rely more and more on the States for performing functions of an intra-

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state nature. Because of this apparent trend, we have the necessity of closer cooperation from now on in preparing the stage for this eventuality.

Still another reason for fuller State-Federal coordination, or for that matter more complete harmony between any airmen or aviation organization, is because, although we all agree on most objectives, nevertheless, we continue to differ as to the route or procedure for reaching those objectives. I feel that insofar as private and miscellaneous aviation activities are concerned, we all want more than anything else more planes, more pilots, more airports, and more business. Whether we rank high or low in the industry, our practical goal is just that. We should work as one in attempting to reach these objectives and should not retard any progress by differences as to the particular course to be followed.

But after all, what is the *most* important reason why we should cooperate at this time or any future time? It is because the airplane itself and its future use will be of such importance in the progress of this world of ours that each of us can play but a small role. Because of this knowledge, difference of opinion, jealousy and pettiness should be eliminated. Patience and honest effort is all that will be required to fit oneself in this great industry of the future, because there will be a place for all of us.

Many of us are so close to our work that we are inclined to overlook the future importance of the airplane and its use. The military plane by its very threat of destruction, will prove to be a preventer of war, instead of a creator of war, and will be more responsible for the future mapping of the world than was manpower in the past. The commercial and civil airplane will provide more frequent and rapid contacts between states and countries and with but one result—increased commerce and better understanding between sections and nations. The possibilities of the use of this new vehicle of the air in advancing and shaping the course of civilization is now being realized throughout the world. With this great vision constantly before us we should be more inclined to contribute as one.

I would like to take this opportunity to congratulate the Association and its President, Mr. Sheriff, for their accomplishments of the past year and extend our appreciation for the splendid attitude which has been demonstrated towards our organization. And these accomplishments include many contributed by Mr. Morris, Connecticut's own Commissioner of Aeronautics. Your untiring efforts in your crusade for uniformity of state law and

regulations is indeed admirable; and your organization, and you as individuals, will become even more important in the promotion and the regulation of aviation with the coming years. My only regret is that we all have been so rushed in order to keep abreast with this fast moving industry that we haven't been able to meet more frequently during the yast year.

I assume the discussions will include cooperation in the further improvement of the worthwhile W. P. A. airport program, our regulations and their application, and promotional activities for advancing our common cause. I do hope, however, that you will concentrate your efforts on the airplane itself in making it an even safer, easier to handle, more convenient and less expensive machine. Our desired objectives of more planes, more pilots and more business will be attained far sooner if this can be done.

I have but one general suggestion to make at this time as to future cooperation—we must meet oftener.

COOPERATION BETWEEN THE FEDERAL BUREAU OF AIR COMMERCE AND STATE AVIATION OFFICIALS

FRED L. SMITH*

In accepting the assignment to speak on this most difficult subject this year, I realized that it would be necessary for me to step out of character. Heretofore, whatever remarks I have addressed to these conventions have dealt with subjects upon which I had very definite first-hand information and upon which I did not hedge in the least, regardless of whether or not I might have hurt someone's feelings. However, I appreciate fully that in discussing such an illusive subject, which has so many ramifications, I may be accused of "doing a Winchell"—and therefore must admit in the first place that some of my observations, while reported as accurately as possible, may not be at all correct. However, such a possibility will not deter me from giving you my honest opinions.

In the past this matter of cooperation has been glossed over with a lot of flowery words, and then everyone has gone back to his respective duties with a sigh of relief and a deep-seated determination to get even with some person or group whose real attitude was distinctly unfriendly. I at least have gathered some assurance from the fact that there are few, if any, state officials who have had any more or any more varied experience with the federal Bureau than I have. And if anyone has the preconceived idea that I am going to confine my entire remarks to a scathing denunciation of the Bureau, I would like to say now that there have been many things done by our state aviation groups that have been quite hair-brained, and I would certainly not be doing justice to this subject if I made state aviation officials appear as lily-white, infallible creatures. Everyone who does anything makes mistakes. Furthermore, it is not the object of this paper merely to criticize but, so far as is possible, to offer suggestions which will lead to a much closer liaison and, consequently, more effective operation of both federal and state aviation organizations.

In spite of the fact that the federal Bureau of Air Commerce published a bulletin on "Civil Aeronautics in the United States" under date of August 1, 1935, the organization chart on page 58

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of this bulletin may contain some information with which many of you are not familiar. Yes, in spite of reports of Senate investigations, and monthly quips in the Aero Digest, the Bureau of Air Commerce actually has an organization chart!

Under the Director of Air Commerce there are two main divisions—the Air Navigation Division and the Air Regulation Division. In addition to these two main divisions, there are four sections directly under the Director of Air Commerce—namely, the Administrative, Development, Aeronautic Information, and Airport Marking and Mapping Sections.

The work of the Air Navigation Division is divided into two main groups—namely, Airway Development and Construction, and Airway Maintenance and Operation.

In spite of the unprecedented opportunities which have presented themselves in the last three years, there has been little evidence of any sort of program by the Air Navigation Division, looking forward to the complete development of airway facilities essential to scheduled air transport operation. It is hardly necessary to add that there has been absolutely no concerted effort on their part to arrange for the provision of additional airway facilities which everyone with any flying experience at all realizes are absolutely necessary for the non-scheduled operator and the private flyer. Obviously the provision of ground facilities—for multi-motored airplanes operating with co-pilots, airway and private radio aids, automatic pilots, and almost every other gadget available to help the pilot—still leaves the airways in a decidedly incomplete and dangerous condition insofar as the non-scheduled operator is concerned. So far as I have been able to determine, there is nothing in the Air Commerce Act of 1926 or any of its many revisions since that time to indicate that the Bureau of Air Commerce is responsible only for the provision of sufficient aids to take care of *scheduled* air transport. I do not believe that anyone has been more active in trying to help the airways situation insofar as the needs of air transport are concerned than I have been; and yet I would feel that I had betrayed a large number of people in aviation if I had not battled for the inclusion of many more fields on our airways than are absolutely essential to the safe operation of scheduled air transport. As matters stand now, except in a few isolated instances, our airways are not developed adequately even for scheduled air transport; and consequently, there are practically no airways sufficiently developed to give the small operator, with his admittedly inferior radio and instrument equipment, more than a

fighting chance. Closer liaison between the Air Navigation Division and the various states most certainly would have brought about a much more satisfactory condition as a result of the opportunities of the past three years.

Airways Maintenance District No. 1, at Newark, New Jersey, has charge of the federal airways including the eastern half of Ohio, and District No. 3, with headquarters at Chicago, has charge of the western half. I am sorry to have to report that except for a recent request for aerial photographs of intermediate fields (relayed through the Adjutant General's Department) from the Newark Superintendent, I have not had any requests for assistance from these offices. I sent the Chicago office data on fields under their jurisdiction, at the suggestion of employees of the Airport Section, but have had no reply.

Perhaps the officials of this division of the Bureau feel that they have a federal airways job to do, on which they do not want any suggestions or assistance from state aviation bodies. Certainly they have made me feel that they could get along altogether without my help. As a matter of fact, they haven't gotten along as well as they might have—and I am just egotistical enough to think that I could have been of material assistance to them.

So long as our present form of federal and state governments exists, it will not be possible for any federal agency to work out its own program irrespective of the inclinations or desires of state and local governmental units. Even in instances where the federal agency might have unquestioned jurisdiction, it would seem to me to be just plain good common sense to make the states and smaller political sub-divisions feel that they had some part in the program. Certainly, some part of the time of the administrative personnel of this Division should be spent in contacting state and local officials. Whether the recommendations of these state and local people are worth anything or not may be open to question, but surely their good will is indispensable to the development of a complete and satisfactory airways system.

Closer liaison between the Air Navigation Division and state and local aviation bodies is a vital necessity.

Let us now turn to the Air Regulation Division. It must be conceded that no abnormal demands have been made upon the personnel of this Division during the past three years, and this condition may explain in large part the much closer liaison and the much more harmonious relationship which exist between this division of the federal Bureau and state and local aviation bodies.

The personnel of this Division rub elbows constantly with state and local aviation people, and in spite of the fact that much of their work places them in the unenviable role of policemen, or umpires, a great percentage of the aviation public has placed its stamp of approval on these men and their activities. The fact that the Assistant Director in charge of this Division is a former state official, with extensive and first-hand knowledge of state and local problems, may have had a much greater effect in promoting friendly relations than can be measured objectively.

In spite of the generally satisfactory relationships between this Division and state bodies, there are a few matters upon which we people in the states have been clamoring for action, but which have not yet been taken care of. At the suggestion of the federal Bureau of Air Commerce, a large majority of states have passed laws requiring federal licenses for airmen and aircraft, regardless of the nature of the operations. As yet no action has been taken by the federal Bureau to provide a temporary license for the movement of unlicensed aircraft to inspection bases—a flying operation which now leaves most of us state officials "in the middle." Furthermore, there is a general feeling among many of us in state work that a restricted license could be issued for the limited use of formerly fully licensed commercial aircraft, which would enable private owners to get considerable service from aircraft retired from active commercial use. I think we are all agreed that where the private owner cannot afford brand-new equipment, we would much sooner see him build up his time in a standard commercial ship from which extra seats had been removed, than to have him monkeying around with half-baked contraptions built up from junked automobile engines, packing cases, and bailing wire.

When the question of definite regulation of flying operations over federal airways broke into the open last fall, many of us in the states regretted the fact that the conferences included practically no one except airline and Bureau officials. The clamor which arose after the publication of the first draft of these regulations was distinct evidence of the lack of a thorough discussion of the problems involved, by all groups concerned. To this day you will find an undercurrent of dissatisfaction in Air Corps circles with the way in which this matter was handled. Every sane person wants to contribute to measures which will add to the splendid safety record already established by scheduled airlines. It is unfortunate that the general impression was created that the airways were to be reserved for scheduled air transport only. Less haste,

and the collection of suggestions from a wider field of operators, would have prevented considerable dissension.

Again, it is quite obvious that there are a number of regulations now on the books and which the federal inspectors are conscientiously trying to enforce which simply have no place, because of the very evident lack of jurisdiction of the federal Bureau. I am referring now, specifically, to the complicated system now in effect governing procedures at local air shows, and to the enforcement of air traffic rules without any regard to whether or not the airplane's operation is within the limits of a federal civil airway. It is very difficult to justify the control which this Division exercises over schools, and other such purely local activities. With the development of more and more aeronautic activity, I believe that this Division will welcome the opportunity to step out from some of these fields of activity where its jurisdiction is either entirely lacking, or open to question.

Of the four sections of the Bureau directly under the Director, there are only two with which we people in the states have been directly concerned—namely, the Aeronautic Information Section, and the Airport Marking and Mapping Section.

The Aeronautic Information Section has really done a remarkable job in the collection and dissemination of information of interest to all of us in aviation. The work of this Section has been extremely difficult during the past three years because of the unprecedented amount of work undertaken on airports and landing fields all over the country. Those of us in the states who have a hard time keeping up with the status of landing facilities in a limited area appreciate fully the difficulties this Section must encounter. Working under the handicap of often having to contact city officials, postmasters, and secretaries of chambers of commerce for technical information on landing fields, it is remarkable that their reports are at all satisfactory. The bulletins issued on landing fields could be much more up to date if every state aviation body could pass upon its tentative draft covering airport facilities immediately before the bulletin went to press. With the airport situation more stabilized—as we hope it will become in the very near future—a little closer liaison will make the work of this Section altogether satisfactory.

The Airport Marking and Mapping Section is one with which every state official has had a great deal of contact during the various unemployment programs. Changing requirements and the continual shifting of administrative personnel, especially those em-

ployed by the CWA, FERA, and WPA, make it extremely difficult to comment accurately upon the degree of cooperation which has existed between this Section and state and local aviation bodies. It would be folly to say that there has been anywhere near one hundred per cent cooperation between federal and state agencies during this period—except, perhaps, in a few isolated cases—and yet it would be altogether unfair to place the responsibility for the lack of more cooperative effort on the shoulders of this Section. After all, the Airport Section's jurisdiction was distinctly limited by the varying requirements of the unemployment programs. No funds were ever definitely ear-marked for airport projects, and the Bureau personnel, in the capacity of advisors, was overruled in numerous instances because of the unusual circumstances existing in many local districts.

Perhaps the most serious handicap of this Section, in taking over the airport program, was the lack of experienced personnel.

It will be remembered that the Airport Section as it existed under the previous administrations was practically wiped out in the summer of 1933. On June 26, 1933, I wired Mr. James C. Edgerton, Assistant Chief of the Department of Commerce, as follows:

> "Airport Section Aeronautics Branch has been of great assistance to us in airport and landing field development. Will be especially helpful in next two years in proper planning of airport work in conjunction with public works program. Fine opportunity to push airport improvements. Every state will need help of this Section."

Just what went on between June and November of 1933 I do not know, but it is sufficient for the record to note that when the CWA program was initiated, in November, 1933, Mr. Geisse was named as Special Assistant to the Director and began the organization of the CWA airport program—and the Airport Section, as it had been organized previously, seemed to pass out of existence. Some of its members were put to work on various phases of the emergency program, in outlying districts; but, for some reason or other, no one of the group who had functioned for a number of years under previous administrations was left in Washington to help direct a construction program of unprecedented proportions. Some of our many difficulties incident to airport projects may be due to this unfortunate situation in the Bureau.

Obviously those of us in the states who are fired with the desire to get our airports in the best possible shape found ourselves working with a brand-new organization in Washington, most of

whom were as inexperienced with construction problems as we were ourselves. Mr. John S. Wynne, who guided the destinies of these programs, had no easy task—and to his credit it must be said that in spite of tremendous handicaps he has made a very creditable showing. If you don't think that he has plenty to worry about, just imagine yourself trying to build up an organization to supervise construction operations on some six or eight hundred airports—with airline officials, state aviation bodies, chambers of commerce, airport managers, and a host of miscellaneous aviation enthusiasts clamoring to be heard! His task wouldn't have been nearly so hard if all those interested in the improvement of any one airport had the same idea. Unfortunately those of us in aviation are extremely individualistic, and we exhibit very little hesitancy in calling another person's ideas half-baked, if they don't happen to agree with ours!

During the Civil Works Administration and part of the Federal Emergency Relief Administration, Mr. Wynne's office did manage to use state aviation officials as his local representatives, but with the advent of the Works Progress Administration we lost that official status and became sort of "horner-inners." Much to our disgust the work went along about as well as it did before, and perhaps in some instances better.

In my own case, as I look back over the three years of intensive effort on airport programs I believe that I have been able to work just a little more effectively as an unofficial advisor. Admittedly, I have become very much incensed, at times, to find inquiries going to Washington—either to the Airport Division of the WPA or to the Airport Section of the Bureau—for information which could have been obtained from me directly. The personnel of Mr. Wynne's present staff operating in Ohio leaves nothing to be desired (although I must blush for a couple of dead-heads that he tried out on us before his organization was perfected).

The Airport Section still has, in my opinion, one of the most important functions of the federal Bureau. I have never been able to see the reason why the Section should be segregated from the Air Navigation Division, where it would seem to fit most logically as a subordinate unit and where its general plans and policies could be correlated very definitely with the whole federal airways system. The separation of this Section from the Air Navigation Division may account in large part for the lack of contact between state and local people and the Air Navigation Division.

The opportunity for airport construction programs similar to

those of the last three years may never again present itself, but surely with the attention of the nation focused on the immediate need for really complete airports for scheduled air transport, and a much more intensive development of many pasture lots which we now, charitably, call "local airports," or "landing fields," this Section will have plenty of work to do in conjunction with state aviation bodies. Closer liaison is, of course, highly desirable. When we have real aviation bodies in the majority of the forty-eight states this cooperative effort on airport construction programs should be much easier of attainment.

So far, this discussion has been confined pretty much to the federal side of the picture. Obviously, cooperative effort involves more than one agency. On the whole, our state aviation officials are a likeable lot—but, after all, aren't we scrambling around at times in so many different directions as to make the people in the federal Bureau wonder what those guys are going to try next?

We have a Uniform State Aeronautical Regulatory Act, but every time it is proposed or passed upon in a different state it takes on some new trimmings which make it hardly recognizable. We seem to have been pretty generally agreed on working for the elimination of gasoline taxes on aviation fuels, and while there is more uniformity on this subject than on many others, there are still a number of states in which a positive attitude on the part of aviation officials toward the gasoline tax would help tremendously.

I am sure that most of us have received a very liberal education during the past three years on just what the requirements are for landing areas—and yet with so much loose talk about "flight strips" adjacent to highways, I sometimes wonder just how much good the experience has done some of our state people. It must be very confusing to the general public to hear the practicability of such meagre strips loosely endorsed by some people in aviation, while other aviation people have been working so hard for the extension of fields into the five hundred to a thousand acre class in order to make them really worthwhile. In states where funds are available, there has been an inclination to develop airways, with all the fancy trimmings such as lights, radio aids, and independent weather stations, without any thought as to the harmful effects of such a movement, if taken up generally, on our federal airways system. The Copeland Committee's report gave sufficient evidence of the lack of uniformity in the making of weather reports, even under a centrally controlled system, to indicate very definitely the insurmount-

able difficulties which would arise in interpreting such reports compiled by a number of different agencies working independently.

A state aviation body with a lot of funds at its disposal is in just as precarious a position as a youthful heir with no business experience. The only thing we can be fairly certain of is that the funds will be spent! If they aren't used discreetly, the reaction on aviation generally is certain to be harmful. Someone will have to pay the piper eventually, and opponents of any movement have an unhappy faculty of keeping track of the extravagances of their pet aversion.

Perhaps the greatest weakness of our state aviation bodies is the tendency to try to sell an idea, or a system, which fits the peculiarities of their particular states, to the nation as a whole. Two examples are sufficient to illustrate this point.

First, there are states in which the aviation body has been set up as a subordinate unit of the State Highway Department. Those of us who have been trying to look at aviation development not from the standpoint of what may happen this year, or next, but far into the future, realize that such an arrangement may be quite necessary, and perhaps an altogether happy one in some cases. We have never tried to urge any definite organization on states considering aviation legislation. However, it is extremely disturbing to find a tendency on the part of those who work under such an organization to feel that they must promote this arrangement on a nationwide basis. Conditions vary too greatly in the different states to make any such general movement desirable. All we have a right to ask is that the aviation activities of every state be given some official recognition under the direction of the best available aviation talent. After all, the sovereign states have a large number of inalienable rights which we must and should respect.

The second instance is the matter of "flight strips" along highways. Unquestionably in states where highways have been or are to be built through extensive uninhabited areas, such as swamps, forests or deserts, this idea may have some merit. But to foist this idea on the American public as a nationwide movement is simply ridiculous from the standpoint of practically all of our eastern and central western states. Personally, I haven't any use for them—but as a state official in Ohio, I would not presume to dictate to Florida, Michigan or a number of western states where such factors as the value of land, density and comparatively well-balanced distribution of population, and density of air traffic, are very much different.

In conclusion, then, it must be very apparent that we state officials have a long way to go yet in defining our own objectives before we expend all our ammunition blasting away at real and fancied evidences of lack of cooperation on the part of the federal Bureau. It is generally admitted that the federal organization—without any reference to personnel—leaves much to be desired. It is hoped that the next Congress will have the time and the determination to find a suitable answer to the difficulties under which the administrators of federal aviation activities have been laboring. Obviously, a more settled condition in the federal aviation body, whatever it may become or be called, will be of immeasurable benefit to every state. Meanwhile, I hope that all of us will go back to work in our own particular areas with a growing realization that with the rapid growth of air transport and the rapid building up of an adequate air force for national defense, our responsibilities to the public are increasing tremendously. Concentrate on worthwhile objectives within your jurisdiction. Remember that it takes two people to start a quarrel—as well as an agreement between two or more people to develop a cooperative movement. "More Work and Less Squawking" would be a splendid motto for all of us in aviation.

FEDERAL CONTROL OF AIR TRAFFIC

J. CARROLL CONE*

I am glad to have an opportunity to enter into your round-table discussion regarding cooperation between federal and state aviation agencies. We have heard so much in the last two or three years about safety in the air; and, since we all realize how very important it is, some of us have given considerable thought to the subject and of what might be done in a practical way to increase safety in air transportation without unduly retarding development. Of course, we all agree that one of the most important factors in the development of air transportation is close cooperation between federal, state and municipal aviation officials.

A study of the accident records affecting all phases of aviation in this country reveals the fact that ninety per cent or more of air crashes in civil aviation are in connection with the violation of some safety regulation and that in the majority of cases if a violation had not been committed the accident probably would not have occurred. It follows then that if we can eliminate the violations we will also at the same time eliminate a large percentage of the accidents.

A study of both American and European records and engineering data establishes beyond question the fact that American aircraft are as good or better than those of any other country; and those of us who have made a careful survey of accident records are convinced that accidents, and particularly air line accidents, are not caused by the disintegration of airplanes in the air, losing of wings, the jamming of controls, or anything of the kind, and that in more than ninety per cent of accidents the airplanes involved were responding normally and naturally to the controls up to the moment of impact. If this is true, then it would seem that a well thought out program of education regarding regulations and the reasons therefor, coupled with adequate enforcement, will do more perhaps toward bringing about an increase in the expansion and development of aviation activities than almost any other one thing we might think of.

I presume that you are all very much interested in our new regulation bulletin on air traffic control along designated air routes, particularly the part which refers to instrument flying by itinerant

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flyers. I trust that you realize that these new regulations and the necessity therefor constitute one of the most complex and difficult situations we have had to handle in the Bureau because these regulations affect every flyer whether in commercial operations or in the military services. There are not a great many miscellaneous operators today who are doing instrument flying but the number is increasing very rapidly and hundreds of new students are taking instruction in instrument flying. Although we have less than one hundred itinerant instrument flyers it is only a question of a few months before we will have many hundreds and these will probably congest traffic along designated air routes and complicate our traffic control problems.

When these new regulations were first started they were generally misunderstood and very greatly criticized, and even now they are not entirely satisfactory and we find ourselves more or less on the spot between itinerant flyers and the air line operators. A great many of the itinerant flyers insist that the new regulations are much too rigid and place unnecessary hardships and inconvenience on the itinerant flyer. Strange to say, some of these complaints come from men whom we know have never done any instrument flying whatsoever and probably never will, but due to a careless reading of the regulations they have the idea that the regulations restrict their operations even when they are operating away from the civil airways and under good weather conditions. Usually, when we have had an opportunity to explain the purport of the regulations and their effect the objections are withdrawn, and in a majority of cases the regulations are commended instead. As a matter of fact, that is the condition that should exist because there is only one reason for new regulations and that is to improve the safety for all who fly. I am sure that you agree with me that when you are flying on instruments the new regulations provide a certain degree of safety from collisions in mid-air. It is indeed an uncomfortable feeling to be on instruments along a designated airway and not have any information as to other instrument flyers who may be in the same vicinity about to meet you head on or overtake you and crash into you from the rear. You imagine you can almost see the dim shape of a plane approaching you in the fog.

Our present regulations constitute the first step in regulating air traffic on instruments. We recognize the fact that they are not as complete as they must become as instrument flying increases. We know that they are not one hundred per cent satisfactory but at any rate they do improve the condition considerably and provide

a certain degree of protection for all of us who fly that we did not have before these regulations were put into effect.

Although some itinerant pilots protest that these regulations are very much too rigid, on the other hand the air line operators feel that we have not tightened up enough.

The members of the National Association of State Aviation Officials can render a great service to the Bureau of Air Commerce and to aviation in general if you will assist us in educating the public as to the necessity for regulations and help us to see that they are enforced. We hope to learn much during this winter's operations as to how we can improve the situation and we invite you to work with us along this line. Send us your suggestions and recommendations from time to time and in the meantime help us to instill in the minds of the public the necessity for regulation and to popularize them with the pilots. These regulations have been much like the Volstead Act. In the beginning they were so unpopular that they could not be enforced. When all parties concerned are made to understand the purpose back of them and the safety they provide I am sure the regulations will become popular and generally obeyed.

It does not make much difference how theoretically correct our regulations may be; we will not obtain the desired result from them until we have the willing cooperation of all parties affected.

The Regulations Division of the Bureau of Air Commerce has come to the point where it takes for granted the one hundred per cent cooperation of the State Aviation Officials. It has been a pleasure to work with you and I know that you realize that we are always anxious to give you our full cooperation. Your problems are generally the same as ours although you have local difficulties that we may sometimes fail to appreciate.

Although my Division of the Bureau is concerned primarily with regulation, we feel that our primary responsibility is to foster the development and expansion of civil aeronautics, that regulations are a necessary incident thereto and are justified but only to the extent that they do aid and foster the expansion and development of civil aeronautics. We further realize the importance of eliminating all unnecessary inconvenience and expense to the aviation operator and will appreciate recommendations and suggestions from your organization for the improvement of our service and to guide us in the cooperation we desire to give you.

(Verbatim report of discussion following Col. Cone's address.)

PRESIDENT SHERIFF: What are your ideas as to the proper and most sensible means of having the right supervision over terminal facilities? It has been suggested that airports, and probably also the terminal facilities that have to do with navigation aids, especially radio, should be maintained largely at the expense of the federal government, but I can't get away from the idea that part of the cost of supervision be left to the local municipalities.

MR. EDWARD P. WARNER: I have been given the specific question concerning federal participation in supervising terminal facilities. It is difficult at the present time to discuss any question of the degree of federal activity without getting into a vast and comparatively unexplored ground in this moment of intense politics. It seems to me it is still good sound principle that the federal government should participate in the promotion of any activity or development of any facility which has, as its primary purpose, the serving of commerce and the public, if such service is in danger of being limited otherwise. When attempting to apply that rule to airports, we would observe that it is impossible to say there is any facility or any phase of activity at the Kansas City airport that does not affect the people of Kansas as well as Missouri, and there are innumerable other examples. Still in a general way, we can say that certain airports are primarily regional in their service, and some others are primarily national in aim. It is a little difficult, as I say, to discuss this in terms of broad principles at the present time. We have had a situation calling for an abnormal amount of public relief, a situation of abnormal restriction, and in fact a virtual drying up in many cases, of state credit. The relief has had to be provided by the federal government, and it is inevitable that the federal government should take over a good many activities. There are some who feel that that should be permanent. It seems to me, however, contrary to the best interests of aviation to put every municipality and state in the frame of mind of lying back and waiting for the federal government to act, with the presumption that until it does, there will be no action by anybody. It does seem to me appropriate that the federal government should continue to provide certain facilities of navigation. It seems to me entirely appropriate that a long recognized airway, regularly flown on schedule, should continue to be a federal responsibility so far as upkeep, including certain lighting beacons and radio facilities. I think the federal government is bound to continue some extension of assistance to airports.

HON. RICHARD S. BOUTELLE, State Coordinator, Bureau of Air Commerce: What we have done in the Bureau toward coordinating activities of our Bureau and the states has depended largely on knowing just what you want, and our ability to do it. Each one of us has different problems, and I don't know of any general talk I could give that would fit each situation. If there are certain things you think we should do that we are not doing, this might be a good opportunity to ask us about those things, and see if we have some explanation and we can help you out later.

PRESIDENT SHERIFF: What about radio control and traffic control?

MR. BOUTELLE: Many of the men have asked me relative to putting through legislation in their own states on traffic control. My advice is that I don't think we know a whole lot about it yet. Legislation in a state, as you all know, is pretty hard to accomplish on a new subject, and still harder to

repeal, and I would suggest that until such time as we feel we are qualified to advise you, you hold up on any permanent legislation.

MR. GILL ROBB WILSON, Director, Department of Aviation, State of New Jersey: We ran into that problem in Newark, which is a convergent point, and we discovered that once we let them pile in. We have had as many as fifteen planes circling that airport, all of them blind flying and trying to keep at a different altitude, and some of them low on gas. That condition hasn't existed since the traffic control system went into vogue. There is a great question legally as to whether we could pick up a ship and tell it to stay in a certain spot so long as we were not employing a regular traffic control director—or whether we could tell a ship over one state to stay there. We were in a ticklish position. The whole proposition was a hard one. It was a matter of lack of education in most problems. We finally did this thing. We took a lot of ideas and threw them into a legislative hopper. We wanted to go on record as to the public viewpoint, so that if anything occurred, we could say we have studied the problem. There was a gradual accumulation of legislation. Many people who did not understand it got up in arms, and they felt we were trying to put everybody out of business who wasn't a scheduled airline pilot. I don't think the federal department has done enough to educate. I believe there should be a definite propaganda, not to the public generally, but to the boys who have had twenty or thirty hours in the air. We sent out an invitation to about 600 pilots to visit the tower at the Newark airport. They didn't come. I think that if the department would send out some sort of a propaganda that it was up to them to study this problem, we might be able to help the public.

COLONEL J. CARROLL CONE: In regard to the question about traffic control and regulations, I am quite anxious for you to thoroughly understand it, so that in turn you may properly instruct and inform the pilots in your state, and the objections to them may be eliminated. None of you would think of starting on a trip today without both a gasoline gauge and a compass. I believe as flying increases we are going to find that we will have to have things we believe necessary now, but are not ready to put them into effect. It isn't anything we intend to do right away, but when we get ready for it we will submit it to you before we actually adopt it.

At certain hours of the day, some other airports are just as bad as Newark, and we know we have just missed some very bad collisions. There have been very few near collisions enroute between towns, but when the airplanes reach the airports, and particularly if it is pretty hazy, that is another proposition. Most airplanes are blind to the rear and above. You can only see what is directly ahead of you, and if the man behind can't see you very well, particularly on a day of bad weather, there is likely to be trouble. So if this confusion increases, I think it is going to become necessary to have federal regulation. But right now, if we attempted to have this regulation before educating the public to it, we would get much objection. If it is brought home to those flyers how much safer it is for them, it may eliminate the objections.

Q: What do you think about the advisibility of requiring the planes which fly those routes between terminal airports to be equipped with a radio so as to get the radio warnings?

COL. CONE: It might be advisable to have a receiver at least, and in the

distant future it might become advisable to have a two-way radio. I think the new pilots will see what its advantages are. It will get to the point where the pilot wants a transmitter anyway. Right now I do not think it necessary for them all to have transmitters. I will say though that we are not intending to put this regulation into effect any time in the very near future. What is your idea about the radio?

MR. WILSON: There is no doubt in my mind that the federal airway will have to be defined. Once a federal airway is defined, I think there is no doubt but that the navigation equipment of an airplane is just as important as the motor in the ship. I would say that on a federal airway, where the government has to exercise responsibility, the installation of a receiver in a plane is absolutely essential.

COL. CONE: Mr. Evans, I know you gave some thought to this idea.

MR. FLOYD E. EVANS, Director, Department of Aeronautics, State of Michigan: There is no question but that any plane landing on a transportation field should have receivers.

Q: Do you think that the radio is the solution of this problem when we don't yet know what the saturation point of an airport is? Do you think the two-way radio is the solution for the problem five years from now?

COL. CONE: We have given a lot of thought to the idea that the airline schedules are going to become so congested that even though all airplanes using the airports are equipped with two-way radios, it will still be a situation which is not satisfactory. Airline terminal use may be restricted, and other airports would have to take care of itinerant flyers. It would be fine now if we could have at certain points where there are a tremendous number of scheduled lines, restriction of the use of the airport to those airlines.

Q: I agree fully with the necessity of having radio receivers and transmitters in the future, but it seems that now is the time for manufacturers to investigate the possible use of all this extra equipment, as some planes are not now built to use it. Manufacturers should be required to allow navigational equipment when planning for the weight of a plane.

COL. CONE: A lot of private owners on their own accord are buying radios, and then getting in difficulties with the Bureau of Air Commerce because of new diagrams, etc., and it takes a lot of correspondence. I am glad to say we are working on an idea now that will eliminate this.

You are talking about regulations for manufacturing four years from now. I thought you were about to suggest that each airplane be equipped with a certain kind of carburetor and dual ignition and then we might also add the radio receiver. That probably would add very little to the cost of the airplane, and bring down the price of radio receivers.

Q: I think we are fairly well cognizant of the airport problems which the officials have well in mind, but when we come to the northeastern part of the country—Boston—we have a little different problem. The gentleman in front here spoke about the airports in New York, and a year or so ago I felt that one solution of this whole thing was the segregation of airports as to classes of traffic in neighboring cities. New York is fortunate in having several major airports which it is going to need. We have only one airport to accommodate the larger type of plane, and there is nothing further in process. Boston is really the center of aviation so far as inspection, repair

and service goes for Maine, New Hampshire, Vermont and the eastern part of Massachusetts, and I can't see just what the solution is in barring everybody from Boston airport who does not have a two-way radio. These may seem like little problems to you, but not to us, if the same rules apply to Boston, Concord and Burlington as apply to the New York and Chicago airways.

COL. CONE: It is very difficult to formulate any regulation that is national in scope, that is adequate or fair to all sections of the country, and about the only way we can handle it is to make the regulation, and then consider it more or less flexible and give inspection personnel a certain degree of authority to interpret the regulations in a particular area, recognizing the fact that different conditions exist in the different parts of the country. These regulations, as I understand them, do not affect any itinerant flyer unless he is doing instrument flying.

I think that when we get these auxiliary airports to use in the future, we will have to form a system of blind flying control, that is a system of area control in certain very large areas. In connection with control towers, as I go around, I see defects. One is that the control towers are so located that the noise of airplanes warming up is a nuisance, and I think these should be reconditioned and made sound proof, and eventually the qualifications of the man in the control tower should be very carefully considered.

We are just taking the first step now in revising our regulations, and we sometimes overlook a lot of situations that are not thought of at the moment. In some respects we go too far, and in some respects we don't go far enough. We would like to have any of you write in constructive criticism.

MR. A. H. NEAR, Superintendent, Bowman Field, Louisville, Ky.: Mr. Wilson brought up the question about educating the pilot to cooperate with the departments. First comes a bulletin which seems to overlook the itinerant flyer in its requirements. The itinerant flyer needs something from the Department that will assure him they are really interested in him as well as the airlines. I think the Department should put on a program to protect the itinerant flyer.

COL. CONE: It is a fact that we perhaps may have unnecessarily antagonized the itinerant flyers when we issued our original bulletin, but if you understand why that went out, I think there won't be any criticism. We had several near-collisions between airliners and military planes, and we more or less hurriedly got out that bulletin. The airline inspection service necessarily thinks about airlines, and when that bulletin was issued,, it was done so hurriedly that we did not realize what it was doing to the itinerant flyer. I think you will realize that unless we have to put out a regulation immediately because an emergency exists, we shall not do so without giving you a chance to express yourselves on it. We realize that to study conscientiously and thoroughly a problem in our Bureau is not enough without conferring with the people in the field. We are likely to make mistakes otherwise, and we are giving all parties concerned in the future an opportunity to comment on any regulation or amendment to the present regulations.

HON. JOHN H. GEISSE, Chief, Development Section, Bureau of Air Commerce: I would like to ask permission to digress from my paper for a moment to this subject you have just been discussing. This is the first time

I have heard of the possibility of requiring radios in all airplanes on the airways. It has affected me quite deeply because I realize its effect on the growth of private flying. I am fully in agreement that the radio is probably going to be required in planes in operation from your terminal airports. As a matter of fact, I agree that probably we will have to take private flying off the terminal airports, but to say that all airplanes have to be equipped with a radio appears to be going quite a ways. If you do this, the autogiro would also have to be equipped with a radio, which at present costs a considerable amount, and weighs forty pounds or more. It strikes me that we might be a little more concerned with the visibility from an airplane, and less about the radio. Further, radio equipment would not stop collisions. Of course, the itinerant flyer wants to know very accurately where he is, but I think this requirement would be quite a blow to the private pilot.

PROBABLE AIRCRAFT TRENDS IN THE NEAR FUTURE

JOHN H. GEISSE*

Approximately two years ago I had the honor and pleasure of addressing your regional meeting at Des Moines. At that time I stated that it was my firm conviction that airplanes for private use would have to be made easier to fly, safer and more comfortable and that these features should take priority over attainment of high speeds. I also advised you that the Bureau had prepared a specification outlining the characteristics it believed should be incorporated in private airplanes and that we had contracted for the construction of airplanes to this specification. I advised you that the airplane would be unconventional in appearance and appealed to you to not let your prejudices against its appearance stand in the way of giving this airplane a chance to prove that it had a place in private flying.

At that time I was entirely convinced that this airplane would not appeal either in performance or appearance to the licensed pilot as to him it would only be an aerial babycarriage. I have the very pleasant task now of advising you that this conviction was wrong. The first of these airplanes was delivered to the Bureau early this year and it has been flown almost continuously since that time, demonstrating to both pilots and prospective pilots; and, contrary to my expectations, the pilots as well as the non-pilots have been almost unanimous in their commendation. The plane has been flown by many people who have never flown an airplane before and a large number of them were permitted to take the airplane off, fly it and land it on their first trip.

In its ease of control this airplane exceeded our expectations in that it was found perfectly practicable to disconnect the rudder controls and lock the rudder in the neutral position. This change was made shortly after the airplane was received and all of the flying that has been done since has been done without rudder control. This flying has included taking off and landing 90 degrees across the wind in winds as high as 25 m.p.h. Before the rudder was locked it was impossible to put the airplane into a spin under full load conditions but it was possible to get about a turn and a

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half of a spin under light load conditions with controls fully reversed following a whip stall. With the rudder locked it is impossible to put the airplane into a spin under any load condition. The lateral control in the stall is comparatively good but not all that we would like to have. There is under some stall conditions a tendency for one wing to drop. However, with the stick held full back this wing can be brought up again with only a relatively slight loss in altitude. Although there is no tendency to whip off sharply, the mere fact that a wing may go down against the wishes of a pilot makes it fall short of the ideal.

The airplane can be landed in any attitude and the brakes immediately applied and it has been landed over a 35 foot obstacle and brought to a stop within 350 feet of the base of that obstacle with no wind. In tests of the effectiveness of the brakes, the airplane was paced by an automobile up to 45 m.p.h. and stopped from that speed in 138 feet, which was just about the best the automobile could do.

The plane is equipped with trailing edge flaps which are unusually effective as a glide path control. They may be quickly taken off or put on by means of a lever extending up from the floor board. When the flaps are all the way down the plane almost points at the spot on which it is going to alight and the angle of descent is exceptionally steep. It has not actually been measured but in flying the airplane it gives the impression of being almost 45 degrees with an airspeed of only 70 m.p.h. The effectiveness and quick control of the flaps together with the fact that no change in trim is required when they are used has led to a technique in their use differing from that ordinarily employed. This technique consists essentially of gliding the airplane to the field without flaps intentionally high enough to slightly overshoot the field if the flaps are not used. The flaps are then put into use to steepen the glide the necessary amount in order to land at the desired spot.

These remarks about the performance of one airplane may appear not altogether in keeping with the subject matter given to me for this address—"Probable Aircraft Trends in the Near Future." I have taken the time to describe the performance of this airplane to you because it has many of the characteristics which I feel will be incorporated in many of the airplanes of the future. Briefly, features in this airplane which I believe should be striven for in all airplanes for private owners are perfect visibility, complete elimination of the spin, stability in the stall, controllable glide path, braking power equal to that of the automobile and usable at any

time, the ability to land thruout a wide range of attitudes and speeds, and two-control operation.

This airplane does not meet two other requirements that I consider essential—first, a minimum flying speed of not over 35 m.p.h., preferably less; second, the ability to climb out of a very small field.

The original specifications for the Hammond Airplane called for a minimum speed of 35 m.p.h., but the opposition to such a low minimum speed was so great that we permitted this to be increased to 40 m.p.h. Now, after a great deal of experience with the Hammond, I regret the change in the specifications. My reason for this regret is not a desire for a lower landing speed but more correctly a desire for a lower crash speed. Reducing the landing speed does not make the landing appreciably easier and in some cases may make it more difficult. In the Hammond particularly, altho it can be landed at slightly over 40 m.p.h., normal landings are closer to 55 m.p.h.; and, in tests conducted by the National Advisory Committee for Aeronautics on the Weick Airplane, attention was called to the fact that the diffculty of landing is more nearly proportionate to the vertical speed of the airplane than it is to the airplane's landing speed. This is because the vertical speed determines the rate at which the ground is approaching and the rate at which controls must be maneuvered. There is, however, one irrefutable fact and that is that if a crash is inevitable in a forced landing the crash will be much less serious at a low speed than at a high speed. In fact, it is probably quite possible to so design an airplane that it can be crashed at 35 m.p.h. with excellent chances of the personnel escaping serious injury. Perhaps it may seem to you that providing for the very occasional crash would not warrant the considerable decrease in performance which must be expected with any decrease in landing speed. However, a fact that we are apt to overlook is that we unconsciously regulate the altitude at which we fly by the hazards associated with a forced landing, and I am sure you will agree that the pleasure of flying is inversely proportionate to the altitude of the flight. Not only does the change in scenery from high altitudes become so slow that it is monotonous; but flying at high altitudes deprives one of the pleasure which we associate with traveling at high speeds, as even the fastest airplane then appears to be crawling. One of the greatest arguments that can be put forth in favor of seaplane flying over landplane flying is the fact that the seaplane may be operated at a lower altitude where we can observe in detail the country over which we are fly-

ing. Some of this pleasure can be transferred to the airplane by reducing to a minimum the hazards of forced landings and this entails a lower crash speed.

If the airplane is not developed to a point where it is safe even in a forced landing crash, then we may expect to see the private airplane of the future equipped with an airplane parachute—that is, a parachute which will bring down the airplane as well as the passengers. This has already been done experimentally; and, if the status of our development funds permit, I expect that the Bureau will take a part in the further development of this safety appliance. I do not expect this development to be incorporated in transport airplanes.

The requirement of being able to operate from small fields I list as separate from the requirement for low minimum flying speeds because the reasons for the requirements are different. In my address to you in Des Moines I stated "I sincerely hope that if such legislation (referring to a Federal Airport Act) is enacted you will use your influence to see that many simple airports conveniently located rather than a few super air terminals are the immediate result." What I expected to happen has happened and one terminal airport has now been practically closed to private flying since no operations are permitted from that airport without radio facilities in the airplane. This is the start and I do not believe it would be far wrong to hazard the guess that in another three years all major airports will be closed to private flying. When these airports are closed private flying is going to have to transfer its activities to the smaller airports presently available and as it expands, if the additional airports required are not to be at inconveniently great distances from the centers of the cities, they will be still smaller. The future private airplane *must be built to operate from smaller and smaller fields in direct contrast to the trend of the past few years towards the requirement of ever larger fields.* Private flying will not be able to support, on its own, flying fields of the size of our present terminal airports.

The subject of flight strips, i.e., landing strips adjacent to highways as highway intersections as a part of our highway system, was mentioned in your meeting yesterday. Such strips in combination with roadable airplanes offer an excellent solution of the problem of airports for the private flyer. I feel confident that we may expect to see the development of such roadable airplanes. You may recall that Mr. Ray, of the Autogiro Company of America, was able to return to Philadelphia from the races last year by taxi-

ing his plane over the mountains when all others were impatiently champing at the bit in Cleveland waiting for the weather to clear. He accomplished this feat unheralded and in a plane not designed for such use. If he were to be faced with a similar situation today he could make the trip in an autogiro constructed for road operation. This vehicle, being developed for the Bureau of Air Commerce, is about ready for delivery. I have already had the novel experience and pleasure of riding in this down the highway and driving it around the field. The conversion from a flying machine to an automobile takes but a few minutes. The roadable feature on this particular plane added only 15 pounds to its weight.

In any discussion of the airplane of the future or of roadable planes, the tailless plane cannot be overlooked. Mr. Waldo Waterman is now engaged in preparing one for the market. The new version will be roadable and will be powered with a modified automobile engine. It is now operating in its roadable phase on the West Coast and I understand that it is capable of a high speed on the road in excess of 50 miles per hour. Of interest is the fact that in California it is licensed as a motorcycle rather than an automobile since it has three wheels instead of four. As a roadable vehicle it must carry a license and a horn and meet all of the other requirements for a motorcycle. Because of its advantages in respect to cost, storage space, and ease of roadable conversion, the Tailless Airplane will become a serious contender for the private market if it can be made to have flying qualities equal to those attainable with conventional types.

The conventional airplane will also have a serious competitor in the direct control autogiro. The fact that the present direct control autogiro can land and take off from small fields and reduce its forward speed to almost zero for forced landings gives to this vehicle the distinct advantage mentioned previously of safe flight at low altitudes. When there is added to this the jump off feature which will permit operation from any space large enough to hold the plane the tremendous advantage it will have must be acknowledged. Jumps up to 35 feet have been made in England with power plants no larger than those regularly used in planes without the jump off feature. The reverse of this procedure, storing energy in the rotor in vertical descent for use in cushioning the ground contact, appears to be possible but not immediately desirable.

There is one development which has received little attention in this country but which I expect to see incorporated in future airplanes for private flying. This is the shock absorbing wing. We

now build into our airplanes that which we call stability, but it is primarily stability relative to the air. In other words, we try to make the airplane such that it will maintain a constant attitude and motion with respect to the air—not the ground. We then, in some cases, superimpose on these built-in forces, an automatic pilot which does its best to maintain the attitude of the ship with respect to the ground irrespective of the attitude of the ship to the air. Stability relative to the air requires the airplane to respond to the whims of air currents and gives us a roller coaster ride. The automatic pilot tends to keep the keel level but in so doing gives us an elevator effect with a greater amplitude of altitude variation. The passenger would much prefer to ride on an even keel and along a straight path at constant elevation. Some system of shock absorbing wing would go a long way toward providing such a ride and in so doing would decrease the stresses in the airplane structure and permit it to be lightened accordingly.

For fear that no mention of converted automobile engines for the future private plane may be interpreted as indicating that this is a dead issue, I desire to assure you that it is still alive and kicking. Altho the particular applications which we fostered have not come up to our expectations we still have hopes and these hopes were strongly bolstered a short time ago by the appearance in Washington of the Funk two-place cabin plane powered with a modified Ford Model B engine which had excellent performance—perhaps because it was developed without our interference. I am advised that the parts for the engine cost $150.

The development in transport planes will undoubtedly diverge more and more from the development in private planes. Recent researches into the effects of altitude on pilot and passengers certainly point toward the development of supercharged cabins not only for sub-stratosphere flying but for flying at altitudes now commonly used. Passenger comfort will probably demand this change. It is most interesting to note in this connection that oxygen deprivation effects are the same as the effects of alcohol. The effect of liquor is to deprive the blood of its normal oxygen supply and its effect is cumulative with that of altitude. If you start out with a passenger only half intoxicated he will become completely so if you fly high enough without a supercharged cabin.

Returning to private flying I desire to give credit to the airplane manufacturers for the progress they have made in improving the safety of their airplanes and approaching the goal I have said was desirable. A hasty survey of the fatalities in non-scheduled

flying for the first half of this year reveals that the percentage of fatal accidents due to stalls and spins is less than 50 for airplanes constructed in or since 1934, whereas for airplanes of an earlier vintage stalls and spins caused 74% of the fatalities. Out of a total of 94 fatalities for all models, 61 were attributable to stalling characteristics, 11 to structural failures, including engine stoppage, and 22 to other causes, 10 of which were chargeable to weather. Of all fatalities 33 occurred in airplanes built in 1934 or later and of these 16 were chargeable to stalls. In these figures I have included stalls which occurred during forced landings.

These figures show a very marked advance in the stability of airplanes and my only regret is that they show the need of still further improvement and that airplanes of the later class still take a toll of lives thru stalls and spins. And, lest someone assume that these have been the result of student flying, let me add that 11 of the 16 spin fatalities in the modern airplanes occurred with pilots having 50 hours or more flying time.

In this connection I should like to appeal to you to use your best efforts to modify the all-too-prevalent attitude of aviation people toward the "dumb" pilot. Remarks I have seen on accident reports such as "Ran out of flying speed and brains at the same time" are not conducive to a widening private airplane market. It is unfortunate that not all of us are so gifted as the author of that report but perhaps some of us—like that unfortunate pilot—are potential customers and with suitable equipment perhaps our dumbness would not be fatal. In our studies of accidents let's not be so ready to charge it up to the pilot but let's see if there is some change we might make in the airplane to prevent a recurrence. Charging an accident to a forced landing is also not sufficient if a change in the airplane could have made that forced landing safer.

In closing I should like to appeal also to the manufacturers thru you to give more consideration to the desires of the man he would like to sell but can't and less to the man he can sell. It would be suicide for any political party to concentrate its attention on localities where its success is assured and overlook those localities which might be captured with a little effort. Following this procedure in aviation may not be suicidal but certainly it is not conducive to growth.

Once before I was accused of trying to force the industry back 25 years. It appears now that that effort may have had some justification. Now I suggest that we try to go back again to the days when airplanes were operated out of baseball diamonds.

FEDERAL AVIATION POLICY

EDWARD P. WARNER*

You have been good enough to invite me to come here and talk about Federal air policy, and I have been delighted to accept the invitation. It is a subject that is necessarily interesting to all of us; that affects all of us professionally; and with which the members of this Association make daily contact in pursuit of their official duties.

The first step towards being matter-of-fact on this subject is to decide precisely what it is that we are talking about. The term policy is used in a variety of senses. We sometimes hear policy spoken of as though it meant the degree of generosity a particular organization of the government will display, and the amount of money that it will feel able to spend on aviation. We sometimes think of policy in terms of a particular action that has to be taken for the moment, to meet a particular problem arising at the moment, but I am going to use the term in its broader sense. I am going to use it as it is commonly used in military affairs, where policy reaches beyond an individual campaign and extends over a long period of time. A policy, if it is to have any meaning, must have continuity. It must not be subject to abrupt change, or to sudden shift and veer with changes of individual opinion. The first essential in discussing policy on that basis is that we should keep it detached from a consideration of partisanship. Politics ought not even to touch the hem of such a discussion. There used to be a saying, unfortunately more honored in the breach than in the observance, that politics stopped at the water's edge. Let us paraphrase it. Let us put it that politics stop at the edge of the limitless ocean of air, and having put it that way, let us live up to it. Men will differ about policy, and honestly, and their honest differences should be threshed out in free debate; but there could be no greater disservice to aviation's development than to make it, as it has more than once in the past been made, a pawn in partisanship's game.

At least there are certain general principles upon which we should all be able to agree. They ought to serve, like the axioms of geometry, as an unshakeable foundation, and whatever argu-

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ment we may have ought to proceed from them, and not about them.

The first of these fundamental principles is that policy shall square with sound governmental theory. If we are to change our course every few days, it perhaps does not matter so much that some of its shifts should cut across the accumulated experience of the ages on how men may govern themselves wisely and justly; but if we are to seek for a proper measure of stability and continuity, it is essential that we cling to the established lessons of that experience as to the Rock of Ages.

Sound theory requires above all things that there should be a classification of the agencies dealing with aeronautics, and especially a separation of those operations which are executive from those which are legislative or judicial. The obvious need for that simple classification has been the subject of an extraordinary amount of distortion in recent years. Far too much rein has been given to the all-too-common habit of attaching a mystic significance to a particular system of administration.

I have heard it argued, for example, that there should be established a commission to deal with the air problems of the Federal Government; that that commission should take over everything the Bureau of Air Commerce does; everything from the Weather Bureau; everything from the National Advisory Committee for Aeronautics; the aeronautic functions of the Post Office Department; odds and ends from the Chamber of Commerce and the National Aeronautic Association; and in some cases it has even been suggested that the commission should have the responsibility for advising on the procurement of military aircraft, and that it should maintain a staff of intelligence officers to keep tabs on the development of aeronautics in other parts of the world.

I hope all that sounds to you just as ridiculous as it really is. Some of these functions are appropriate to be handled by a commission. Others are utterly unfitted for such treatment. A commission cannot, in the nature of things, fly an airplane. It cannot command a battleship. It cannot, as a commission, predict the weather or maintain an airway, and in proportion as such functions are given over to a commission, it will cease to function as such. It will find itself constrained simply to designate its executive functions to its individual members; it will lose collective efficiency in the handling of the judicial responsibilities that really belong to it; it will in effect cease to be a commission, and become a loose grouping of several bureaus. One might as well propose that the

Justices of the Supreme Court should collectively take over the administration of the Department of Justice, its prosecutions and its G-men.

It has been argued from time to time, and perhaps nowhere more often than in connection with aviation's affairs, that certain mistakes have been made in respect to commercial aviation and therefore the form of the controlling agency should be changed. Will it eliminate the mistakes to change the form? It is ridiculous to think so. If you appoint administrators X, Y, and Z over three different bureaus and they do their jobs badly, and you decide to fix that up by merging the three and calling Mr. X, Mr. Y, and Mr. Z the members of a commission, you will not have better administration, but worse. If the administrators were lazy, incompetent, or corrupt then the commission will be incompetent, ineffective, or incapable of doing justice. A bad administrator at the head of a bureau affects only his own bureau, but a timorous or time-serving man transplanted to a commission pollutes the activities of the new agency as a whole. Too often, the attempt to administer through a committee results in a nice assembling of all the worst qualities of all the members.

The attempt to fix things up by tossing this fantastic variety of functions into a single grab-bag marked Air Commerce Commission is one extreme of bad organization. At the other extreme is the casual assignment of judicial functions to an individual administrator, and especially to an administrator appointed as a part of a current administration. A governmental system can survive a great many changes in its internal organization, but it cannot survive change in the fundamental concept of justice. The American system, speaking not in obeisance to the letter of the law as written 150 years ago but to the system as it exists in living spirit, is incompatible with the control of the destinies of the individual by any official who is subject to ready appointment and ready removal, and who is as an individual a part of an executive department. That is especially true if the official concerned is himself an interested party in the case that comes before him for settlement.

I am going to take as an example the Directorship of Air Commerce. I hope it will be understood that my remarks have no special relation whatever to the present incumbents of the Bureau of Air Commerce, to any of their predecessors, or to their successors, whoever they may be. I am talking of a general principle. I haven't been so discourteous as to ask those now charged with this responsibility what they think about

their own jobs, but I know that one at least of the previous Assistant Secretaries of Commerce for Aeronautics feels much as I do about it. Fix your minds upon the Director of Air Commerce. In respect of the regulation of civil aeronautics, he, through his various agencies or through those associated with him, makes the regulations. He is thereby a legislator. He is the detective who discovers the violation of the regulation. He is the policeman who makes the arrest. He is the court of first instance before which the violator is brought. He is the court of appeal before which the appeal is heard. And finally he is the executioner. That is not a unique situation, of course. There are other such cases—too many of them in our government. But there are few more conspicuous cases, or cases where the range of official duties covers a wider territory than here, and I hope I will not be misunderstood if I say that this office seems to me an absolute caricature of sound government organization. I think it is unfair to a man who has a public position of this sort to have to put himself successively in such a multiplicity of functions.

Another such example, of course, has existed in the Post Office Department. That has been amended to a considerable degree by bringing the Interstate Commerce Commission into the field. It would be a great piece of recklessness on my part to say anything about the Interstate Commerce Commission, when we are to hear from the leading expert on the subject very shortly. I will make no comment on its except that it has obviously served a very good purpose in establishing an agency which has continuity through the nature of its membership, and which is essentially judicial in its structure, in a field that cried aloud for judicial consideration. But the powers and duties of the Interstate Commerce Commission in connection with aeronautics have not yet been adequately defined, nor has the Commission been given a broad enough discretion.

In the past there has been no assurance—hardly even the hope—of continuity in air transport policy; and at best there has been a feeling that personal inclination on the part of high officials who came into temporary control of air transportation were bound to affect the basic policy. Air transportation cannot progress as it should without assurance of more continuity than has yet been obtained. With an air mail law undergoing fundamental revision every second or third year, and with the suggestion of a periodic reawarding of air mail contracts by a completely new process of

competitive bidding periodically raising its head, no operator can plan either confidently or intelligently.

Whatever the transport policy may be, it will call for some sort of payments to be made by the Government to the airlines. The payments may be only for service rendered in some cases; they may have to include direct grants in aid in others; but in either case, whether the distribution of benefits is through subsidies, financial grants, mail contracts, or still more indirectly, it is a judicial function. Such a distribution is perhaps the most delicate responsibility, and the responsibility most likely to lead to fear of favoritism, and the most likely to lead to intense personal feeling, of any that the government has to carry. Again, it seems to me it was unfair to the Postmaster General and his several associates to require them to carry that responsibility as they did in the past. It was characteristically a commission job; it should be so recognized, and so remain.

The first requirement of policy is that the organization should give credit to the eternal principle of the division of governmental function. The second is that there should be a limit on governmental responsibility, and I suggest a reasonable limit is that the government should protect anybody who is too helpless to protect himself. The government should protect air line passengers from being ushered into an improperly constructed machine, or one that is being flown improperly. It should protect the purchaser of an airplane so that he will not be sold a machine that is not fit for his use, but I cannot agree that it should protect individuals against themselves. In our enthusiasm for the elimination of air accidents, we are sometimes prone to go even to that length. In Los Angeles, I witnessed the air races, and I heard a wealth of comment to the effect that the Department of Commerce should not allow all this upside-down flying only sixty feet off the ground. We may think such thrills undesirable, and still consider them entirely outside the government's province. The Department of Commerce should have nothing to do with trying to control the activities of any flyer which do not affect anyone's life, health, or pursuit of happiness but his own. I suggest then that we should make a definite distinction between the requirements of public safety and the requirements that relate only to the individual's protection from injury to himself.

That doesn't necessarily mean a restriction of the Bureau's present activities. In some respects it might enlarge them. I would like to have every man who deals with aviation as a cus-

tomer to have all forms of information. I would like to have a purchaser know what a plane will do before he buys it. I would like to see a Government certificate of performance of the type go along with each plane. I am thoroughly sympathetic in principle with the idea that there should be classification of airplanes in respect to flying qualities and ease of operation.

Now let me focus my attention for a bit on the Government's relation to air transport, and so on the field that really does call for control by a commission in the interest of dispassionate justice to all parties. The first need there is a better system of competition in the awarding of air mail contracts. If you as individuals want to get a house built, you go to a group of contractors, who take your specifications and give you a bid, and you will probably give the job to the man who makes the lowest bid; but if you want to employ a confidential assistant, you do not put the specifications out for competitive bidding. You decide, after inspecting all the candidates, who is best fitted to do the job. So with the airlines. We are not buying supplies. We are buying continued service, and we ought to act accordingly. The illusion that everything can be done by competitive bidding is very widespread in Washington. In 1929 the air routes were let out by competitive bid. In three or four years some of the winners were in terrible trouble, and to save them from going to the wall the Post Office got an amendment to the law and readjusted the compensation. In 1934 the routes were let out on competitive bids again, and again some of them went at perfectly ridiculous figures. Some of the bids in fact were purely fictitious, based on a conviction that the rates would shortly be readjusted, and that a bid, like the traditional political platform, was something to get in on, not to stand on. Just such a readjustment has occurred. So competitive bidding is a temporary device, and a meaningless one.

The second need is to make the compensation proportionate to service rendered; and I suggest that since passenger service comes from very much the same people that make the principal use of the mail service over that same route, they logically ought to receive as passengers the residual benefit of what they spend on postage, by giving the air line a payment equal to the entire air mail revenue derived from its route, and then requiring the line to keep up a passenger service commensurate with the revenue so received. To do otherwise, holding out a part of the air mail postage revenue at a time when air transport as a whole is admittedly in need of some sort of Government aid, is unfair, illogical, and leads to wholly

inaccurate assertions about the dependence of particular lines on "subsidy."

The third need is that, if air transport service is for any good reason to be continued where it cannot possibly be self-supporting, we should face that fact squarely. If the airlines are to be run where they cannot develop enough traffic to carry their costs, tell the public the truth about it, and let the taxpayer pay the bill.

In the fourth place, somebody should maintain a closer watch over economic operations, including those of passenger service, and exercise a freer discretion in regard to them than anybody is empowered now.

In the fifth place, promote good operating practices, such as will encourage both the steady improvement of service and a steady improvement in economy of operation. The law now says that no one shall make an excessive profit, but it carefully refrains from defining an excess. If you talk in terms like that, with the regulating authority instructed to see that no one makes very much money and that no one loses enough to put him out of business, operation goes practically onto a cost-plus basis. That has its customary disastrous effect. There is a positive inducement to make business methods as wasteful as possible.

Sixth, there is the clause of the Air Mail Act that practically prohibits starting any new line that would be competitive with any now existing. That destroys the most important of the Interstate Commerce Commission powers. The provision is reprehensible, and it ought to be changed without delay. Nothing should stand on the statute books which debars new competition where it will serve the public convenience.

Finally, let us make sure that the control is sufficiently broad to be effective, and through an agency especially qualified. The Maritime Commission has been recently set up for ocean-going shipping. I am not going to argue particularly for a special commission to handle aviation. I happen to believe that on the whole a separate agency would be best, but I feel much less strongly on that subject than do some of my friends. I think the Interstate Commerce Commission is doing a good job. I am inclined to believe that a new agency, without so much background relating to other fields, might do a still better one, from the technical point of view, though it couldn't possibly command more general respect or have higher standards of conduct.

Let me summarize, finally. The essentials of an air policy are that it be founded on sound principles of government; that all the

principles involved should be frankly declared with an end to evasion and circumlocution; that it should avoid any unnecessary interference with individual enterprise; that it should give the maximum return for the sum expended by promoting efficiency and economy of operation; and that it should lead steadly toward a completely self-supporting air transport system, all forms of aid being self-extinguishing as rapidly as the progress of the art permits. If we all do that, we shall not only be going somewhere, but we will all know where it is that we are going; still more important, we shall get there.

THE INTERSTATE COMMERCE COMMISSION: ITS FUNCTION IN AIR TRANSPORTATION

NORMAN B. HALEY*

I am indeed grateful for the invitations of President Sheriff, Secretary Fagg, and Commissioner Morris, to come to Hartford and attend your convention this year. In the not too distant future I hope to have the opportunity of expressing more appropriately than is possible in a few words today appreciation for the honor you have thus bestowed upon me. It was particularly gratifying to have these evidences of cooperation from you who are out on the firing line of aviation activity, and I long ago learned that when you want to know something about a business you can get the best results in the shortest time by conferring with those who are closest to the scene of action and are "taking it on the nose," so to speak.

In the few minutes I should be consuming your time today, it occurs to me that you might be interested in a brief thumb sketch of the Interstate Commerce Commission and of the procedure under which it functions. However, on the theory that discretion is still the better part of valor, I shall not at this time attempt to discuss with you the various provisions of the Air Mail Act of 1934 and its amendments of 1935. Having read in the JOURNAL OF AIR LAW,[1] which we have found most helpful and informative, Mr. Logan's 1935 report in which he analyzed those acts quite fully, it seems to me that there is little I could add to what he has already told you about them. Anyway, if I should undertake the task I probably would find it necessary to join him in retirement to a bomb-proof shelter. I am, of course, looking forward to the pleasure of reading Mr. Logan's report for this year, but Mr. Inwood tells me that I am unfortunate in not arriving in time to hear Mr. Knott's presentation of it by proxy Thursday evening.

I should point out that in addition to the amendments of August 14, 1935, Congress by joint resolution directed that the files, records and property of the Federal Aviation Commission be transferred to the Interstate Commerce Commission. The Bureau

* Director, Bureau of Air Mail, Interstate Commerce Commission.
1. 6 JOURNAL OF AIR LAW 514 (1935).

has indexed and filed those records in such a way as to be most convenient to those who have the right of access to them. The information contained in them has been of great value to us in reaching a better understanding of the problems confronting the aviation industry. With the knowledge they afford we also better appreciate the unanimity of favorable comment which the report of that Commission received for comprehensiveness and skill of presentation.

You, of course, know that the Interstate Commerce Commission is not new. A few days more than four months hence will mark the 50th anniversary of its beginning with the passage of the Interstate Commerce Act on February 4, 1887. It is among the oldest of the independent establishments of the Federal Government. By independent establishments we mean those agencies which were created by and report directly to the Congress, as distinguished from the Executive Departments whose administrative heads are members of the President's Cabinet.

Some believe that the age of the Commission and the fact that it has been preoccupied all those years with matters pertaining exclusively to railroads, disqualify it properly to administer the regulation of the new and rapidly developing forms of transport. The thought seems to be that somehow it would be impossible for the Interstate Commerce Commission to refrain from bringing into play the policies it has formulated for application to the older transportation agencies. But when the Commission came to take on very limited regulation of the air lines, and later regulation of motor carriers, instead of farming out the new work among its existing bureaus, the Commission created separate bureaus to handle the new work which was thus kept insulated from its railroad work. I could call these new units "watertight" compartments were it not for the fact that while the new work has been effectively isolated thereby, it is conducted under broad administrative policies which the Commission has time-tested in the field of transportation and found to be satisfactory.

A few nights ago, in reviewing a comparatively modern treatise on American transportation problems, I ran across this statement: "To those who contend that the existing Commission is *railroad-minded,* it may be answered that long years of effective service have shown the Commission to be, to an unusual degree, *duty-minded.* There is nothing in the extensive record of the Commission to suggest bias; rather, if charged with the responsibility of regulating all agencies of inland transport to the advantage of

the public, there is every reason to believe that body will discharge its responsibility with intelligence and fidelity."

As one who has been on the staff for over a quarter of a century, it seems to me that that statement is a good summary of the Commission and an accurate forecast of the manner in which it would approach the larger problem.

The Commission has always called to its service men who are qualified to deal with the technical and peculiar problems presented by the industries with which it is dealing. Moreover, the present plan is entirely logical and consistent with the practice by which the Commission distributes its responsibilities among its own members. As you know, there are at present eleven Commissioners. The membership is divided into divisions consisting of three and sometimes four members, to which are assigned matters pertaining to the various phases of the Commission's work. Thus there is a division dealing with all matters relating to air carriers, another handling those of the motor carriers and several divisions in charge of the various phases of railroad regulation. Assignments to these divisions are made with due regard to qualifications and experience. In some cases individual Commissioners are assigned to more than one division, and all eleven Commissioners participate in the deliberations and decisions of the full Commission, either initially in important cases which are not assigned to divisions or upon appeal from decisions of the latter. In addition to this work each Commissioner is charged with supervision over the administration of one or more bureaus.

In the matter of procedure, I should first say that in recent years the Commission has promulgated rules and regulations for establishing the fitness of those eligible to practice before it, a register of practitioners is established and maintained, and certificates of admission issued. While the roster of qualified practitioners quite naturally is made up largely of lawyers, the point I want to make is that the practitioners are by no means confined to members of the legal profession. Members of other professions and even persons not connected with any profession are eligible to qualify by showing their familiarity with the Commission's procedure and that they have had or will have occasion to represent others having business before that body. The Commission frequently goes out of its way to assist and hear the non-professional practitioner in order that the full merits of his case may not be lost due to any lack of skill in presentation.

All important decisions of the Commission and its divisions are reached only after formal proceedings—that is to say, a full public hearing at which all interested parties are given the opportunity to appear and present their views. All testimony is given under oath and the witnesses are subject to cross examination. In many cases hearings are held before examiners who prepare proposed reports in which the issues are discussed and recommendations made for findings thereon by the Commission. After exceptions to the examiners' proposed reports are filed by the parties and oral argument is had, if desired, the Commission or a division reviews the proposed report and renders its own report in the case which frequently differs from the examiner's report in material respects. If any interested part is dissatisfied with a finding by a division and can show that error has occurred in interpreting the evidence or the law, he may appeal the case to the full Commission for speedy review.

The promulgation of all rules and regulations for compliance by the carriers is handled in much the same way. All parties having knowledge of the subject matter are given an opportunity to present their views at a public hearing conducted under the Commission's Rules of Practice. Tentative drafts of regulations are submitted to all parties for their comments and suggestions before final adoption.

From long experience the Commission has found this practice to be the most satisfactory to all concerned, less injustice is done and the best results are obtained. Due to the size and complexity of important railroad cases in the past there has been criticism at times that the procedure is too slow. But there is no reason why that procedure can not be adapted to the needs of rapidly changing situations with satisfactory results.

In the early stages of its work dealing with the new industries the Commission has been very liberal in the matter of granting extensions of time requested by the parties who are new to Commission procedure. This has delayed final decisions in some cases which will be overcome as the parties become more familiar with the Commission's practice.

I hope that what I have said has not seemed too technical and that you have not gained from it the impression that we are trying to sell something. We have nothing to sell. Our only objective is to equip ourselves properly to render the best possible service.

We should like to cooperate with you on all matters of common

interest which explains why we decided to submit to the State Officials through this organization (even though not required by the Act) applications under Section 15 for approval of new service and complaints against existing service.

As a matter of general interest we should like to keep in touch with developments beyond our immediate jurisdiction so that we may have a better grasp of the whole problem. Our official acts, of course, must be confined within the four corners of the statutes under which we operate.

TRENDS IN AVIATION DEVELOPMENT*

J. Monroe Johnson†

A year ago, when I had just come to Washington, I had the pleasure of meeting some of you people. Your new president speaks of his desire for cooperation. I promised it then, and nobody knows better than I that uniformity of legislation is absolutely essential. Last year I knew nothing whatever about the problems of air transportation, and as I have had four other bureaus to learn about, I feel perhaps I haven't gained very much on the industry, but I think I shall be able to catch up on the sick within a short time.

Think of what has happened since I met with you last year! While this was going on at home important developments were taking place beyond the boundaries of continental United States. Airmail service across the Pacific to Hawaii and the Philippine Islands, inaugurated late in 1935, is in operation regularly with a round trip every 10 days. The next step will be passenger service. Bureau of Air Commerce inspectors already have flown over the route, inspected the equipment and checked operations methods and the Department has issued a letter of authority for the air line to operate this service.

Trans-atlantic scheduled service is soon to become a reality. This involves diplomatic negotiations between the nations on both sides of the ocean, and the conversations toward this end are proceeding satisfactorily. There will be two routes, a northern route via Newfoundland, and a southern one by way of the Azores and Bermuda, and services will be operated by both American and European air lines.

The Hindenburg will soon complete twelve trips. Those things have happened since I met with you last. Fortunately for me, I have led the negotiations with Great Britain. I want to assure you that the share of the United States will be safeguarded. The United States produces 80% of the traffic, so why, in this trans-atlantic flying, should we let someone else have 80% of the business?

A conjecture on my part, confirmed in my mind now, is that

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† Assistant Secretary of Commerce.

while we take great pride in the development of aviation, it is still in its absolute infancy. Things we have pride in today are in a few days obsolete. I am informed by your airline companies they have no reserves at all for physical depreciation, but their reserve is for obsolescence. You are in an industry competing with other forms of transportation, and you have the world in front of you. Those other forms of transportation have no more business, no more revenue, until people produce more business, while you have just the slightest part of 1% of your potential business. The Douglas Aircraft Company took pride last year in their new ship, but now that has been superseded by a bigger Douglas. The Boeing Company is also bringing something out. Things looked at in wonder today are quickly superseded tomorrow.

You of course are aware of the encouraging trends apparent in all phases of aeronautics. There is a new interest in flying, a larger volume of air traffic, rapid strides are being made in design of flying equipment, production is increasing, scheduled air service is being expanded to embrace transoceanic routes; in fact, you will find evidence of optimism and concrete progress wherever you turn in aeronautics.

I believe we are at the beginning of another phase of development which will equal or exceed the one which began in 1926, with the important difference that we now have much more upon which to build than we had in 1926.

In the operation of scheduled air lines, the new advance is well under way. During the calendar year 1935 the scheduled lines of this country carried 860,000 passengers, which was better than a 50 per cent increase over the preceding year and the first important gain in four years. This year it appears that passenger volume will pass the million mark.

Air mail jumped from 7,800,000 pounds in 1934 to nearly 14,000,000 in 1935, and there is every likelihood that there will be another substantial increase in 1936. Air express is growing at an amazing rate. There has been a gain in every successive year since 1926. Poundage continued to mount right through the depression years, and in 1935 the air lines carried 5,500,000 pounds of air express.

In miscellaneous operations branches of the industry—charter flying, aerial photography, crop dusting, student instruction, private flying and the like—there has been a steady increase in the number of miles flown annually since 1933. The number of licensed air-

planes and pilots likewise has increased. There now are more than 15,000 licensed pilots, more than 7,000 licensed airplanes.

The Bureau of Air Commerce report on aircraft production for the first six months of 1936 discloses that American manufacturers built 1,363 aircraft during the first half of the year. This was a notable gain over the corresponding period of the previous year, and the total for the 6-month period exceeded the total for the entire year 1933.

Everything is growing. You are fortunate to be state aviation officials at a time like the present when your efforts at promotion and regulation of aeronautics in your states are bound to have deep significance and to bring about gratifying results.

The work of the Department of Commerce reflects the increasing importance of aeronautics in everyday business and social life of the nation, and at the same time contributes to this development.

For example, air traffic along the established air routes has become so much heavier in the past few years, and so much of it takes place under the difficult conditions presented by unfavorable weather, that the Bureau of Air Commerce has found it necessary to institute a system of airway traffic control.

Airway traffic control stations are in operation at Newark, Chicago and Cleveland. Others are being established at Pittsburgh, Detroit, Washington, Los Angeles and San Francisco. These control stations coordinate the movements of all airplanes flying along the airways converging at their airports, carrying out this function every day, in good weather or bad, but bearing the heaviest responsibility in poor weather, when aircraft are flying in or above the clouds, and it is especially necessary to see that they are at safe distances from each other.

The airway traffic control station is, in effect, a super dispatching agency, coordinating the work of the various air line dispatching departments and following the operations of any other craft on the airways, including miscellaneous commercial operators, private flyers, and pilots of the Army, Navy, Marine Corps and Coast Guard. It receives reports on the flight plans of all the air lines and all other planes, gets radio reports from the air lines and Bureau of Air Commerce stations as to progress of airplanes in the air. Through these same radio stations it issues instructions which put the various airplanes at different altitudes, or in some cases reduce speed or alter courses so that there will be sufficient separation.

A number of airports have airport traffic control towers for supervising actual takeoffs and landings. Airway traffic control stations necessarily work in close harmony with the towers—bringing the airplanes to the vicinity of airports in orderly sequence and turning them over to the towers for the landing operation.

To make the system effective for all aircraft, the Bureau obtained the cooperation of the Army, Navy, Marine Corps and Coast Guard, and promulgated new regulations governing the flight operations of non-air line craft engaging in intentional instrument flight along the airways through or over clouds. These new regulations provide for ratings on instrument flying for non-air line pilots, require these pilots to furnish advance information when they propose to proceed through or over clouds along an airway, and require them to report on their progress by radio en route.

The fact that a traffic control system and regulations governing intentional instrument flying along airways were necessary is definitely an indication of progress. They were needed only because the aeronautics industry has advanced to the point where it can keep operating in weather which formerly would have been prohibitive, with more regularity of service and fewer cancellations.

You know, in speaking of traffic control, every movement of every animal on the surface of the earth has always been in a path. The buffalos of the plains and the birds of the air have their paths. We came along, and we had the bridle paths, wagon roads, then the highways and railways. From the time of Solomon, human beings have sought to fly. We began to fly, and now it has become matter of fact. Our airways are 50 miles wide compared with the width of the railway of 4.8½ feet and highway width of 20 feet. We have airways 50 miles in width, but these have depth as well. All the other paths for traffic have length, but almost no breadth and no thickness. We have unlimited breadth, unlimited length, and unlimited depth, and yet already we have the problem of traffic control in a limitless atmosphere. Finally, we are beginning to think in terms of traffic control at different altitudes. We can't stop airplanes with red and green lights, but something has to be done about them, and with time and thought spent on it we ought to have no trouble at all.

I come from South Carolina. I believe in states' rights. We started this railway business about 1830, and as soon as we got it started we had our Railway Commissions, and for years went along all right and the trains were run successfully, but it was thirty or forty years before the railway was recognized as a means of suc-

cessful transportation. As soon as a little speed was developed and the trains got to traveling greater distances, they found the state boundaries were too close even for trains. The Interstate Commerce Commission was formed in 1887. Each state could not have separate regulations for the railways, so the Interstate Commerce Commission took on this duty and, from day to day, year to year, the state railway commissions have even changed their names and devote their entire attention to something else. Now to come to this air business. you can see at a glance that to be cognizant of new regulations and to fly with peace of mind and certainty, you have to have uniform regulation, and the only way to have it is to have the various states pass almost identical regulations. There will be individual ideas and desires that might not and should not interfere at all with persons not crossing the state boundary, but you cannot get into an airplane in any state and go very far without going out of the state. Most nations are much smaller than ours, and an airplane cannot go very far without crossing a national boundary.

When savages lived far apart, each man's right was his own law, but he found out that to combine families and have a chief brought more power, and this went on and on until we had states and nations, and we had to surrender some of our individual rights, but we still have every right that doesn't interfere with some other individual It is proper that the individual, the county, the state, and presently the nation should surrender those rights that interfere unnecessarily with some other individual, state or nation. I have no regrets when South Carolina surrenders any right which interferes with North Carolina or Connecticut, nor am I jealous when the United States surrenders any right which interferes unnecessarily with Canada or Mexico, and you people can bring that lesson home to the world. Wars are caused by nations not caring and refusing to surrender national rights likely to interfere with another country. We have laws to settle our disputes in civil life in accordance with the readiness which we take to comply with the decrees of the court. That is a measure of civilization, and there is no reason in the world why aviation cannot bring that lesson to humanity when flying to all parts of the world. When we are so closely together, there is no possibility of maintaining civilization unless nations, like individuals, and states, surrender their rights whenever they interfere with the rights of others.

Now then, when you have your uniform regulation, there is a peculiarity of the American not to be compared with any other

man on earth which has to be taken into consideration. We have very heated campaigns, but when we vote, we don't think we have to fight. We count the ballots and go home. That is another great mark of the measure of civilization. We consider that the majority vote represents the will of the people, and will consider the result right until we have a chance to vote again. We don't like governmental regulation, especially federal governmental regulation. In general people do not like to be interfered with by the federal government. We, in Washington, are open-hearted and anxious to serve. It would be fatal if any state thought the Bureau of Air Commerce was urging any piece of legislation on it. We will help you to form suggestions, but they must be proclaimed as such, but while we may say we think it is fine, and tell you we know it would be fine to have uniform regulation, if you want South Carolina, my state, to pass it, don't announce it as a federal regulation. I think every state in the Union more or less feels the same way. If we can help you, nothing will give us greater pleasure. We know that without uniform legislation in aeronautics, chaos is the result.

Turning back now to developments within the United States I want to mention a project of the Bureau of Air Commerce which concerns not only scheduled air transportation, but also all other phases of aircraft operation, namely, the airport development program. As state aviation officials each of you knows what has been accomplished in your own state toward the establishment of new airports and improvement of old ones by means of Works Progress Administration projects, with the Bureau of Air Commerce participating as adviser and consultant on technical aeronautical phases. Nationally, the last report of W. P. A. shows that 506 projects have been released for operation at 438 locations. Total funds released for these projects amounted to $40,690,290. These figures cover the present W. P. A. program only, and are in addition to what was accomplished previously under the Civil Works Administration and the Federal Emergency Relief Administration. The present program is by far the best of the three from the airman's point of view, because it includes such substantial improvements as hard surface runways, hangars, aeronautical lighting and radio equipment.

In the Bureau of Air Commerce airplane development program, aiming at improvement of private owner types with reference to simplicity of operation and reduction of costs, five of the six new type airplanes for which the Bureau contracted have been de-

livered, and other work on engines, propellers and accessories has been completed or is under way.

One of the planes is the Hammond, a craft which is outstanding for the ease with which any pilot, even a novice, can take off and land. A second is the Waterman tailless airplane, in which the tail has been eliminated entirely, and control surfaces are at the trailing edges and ends of the wings. A third is the Weick, an experimental venture with which various new principles in control are being tested. The Curtiss-Wright Coupe embodies in a small airplane the all-metal type of construction which has been utilized so successfully for large transport craft. Latest to be delivered to the Bureau is the Arrow, which in most respects is conventional, but which is powered with a Ford V-8 automobile engine. The sixth aircraft is an autogiro of advanced design, an outstanding feature of which is ability to operate on the highway between the owner's home and the field at which he is to take off.

In activities such as I have been discussing it is necessary for the Federal government to take the initiative. In many others the responsibility falls to state officials. In everything close cooperation between the states and the Federal government is essential, and in some cases it is a prerequisite to success. In the airport program, for example, the states in which local officials have participated actively in setting up programs and seeing them carried through are the ones which have seen real improvements effected in their airport systems.

It is the view of the Department of Commerce that aeronautics in the United States can best be expanded and safeguarded if, in addition to the activities of the Bureau of Air Commerce, the states within their own spheres undertake to encourage aeronautics upon the basis of integrated programs and to regulate flying under rules and practices which are uniform.

I am sure that the states in general concur with this view. The efficient manner in which they have cooperated in the nation-wide airport programs is one indication that they do. The spirit of cooperation that is invariably present in general conferences between the Bureau and State officials, and in individual contacts, is further evidence. The present status of licensing requirements—most of the states now simply require pilots and aircraft owners to hold Federal licenses, thus achieving uniformity in the simplest possible way—testifies to the concern of the states for uniformity in aeronautic regulation.

This happy situation is a direct result of the National Associa-

tion of State Aviation Officials program. It is through your organization that so much progress has been made toward unity of purpose and uniformity of regulation, and it will be through you that further gains will be made.

The Department of Commerce has information respecting draft state aeronautical regulatory acts and a draft airport act which will be furnished to any states requesting it. Any assistance that we can give is freely available to the states in framing further legislative programs. But we want at all times to be sure that we are simply giving information and assistance, and bear in mind that the state itself finally must decide what legislation and regulations it requires to meet its own local problems.

Conversely, we are relying upon the state officials individually and through their associations for advice and counsel on proposed new Federal regulations as the necessity for revision or amplification of these Federal regulations arises from time to time.

During the past ten years, since the enactment of the Air Commerce Act in 1926, the number of aviation activities to be brought under Federal supervision has increased very rapidly and changes in operating methods and techniques have required corresponding alterations and amendments in the regulations issued by the Secretary of Commerce. For some time it has been obvious that while the regulatory program was quite well adapted to conditions as they have been and now are, it is not sufficient to afford that full measure of flexibility of treatment which will be required for the next ten years.

Accordingly, an effort was made to take a careful inventory of the situation and, within the legal framework of the Air Commerce Act, to plan a regulatory program sufficiently comprehensive to permit the expansion necessary for the next decade. The assistance of two outside legal counsel was arranged and we are now proceeding to revise the whole set of Department rules and regulations.

The fundamental change which will be first noted is one of form rather than substance. While somewhat different from the bulletins which have been previously issued, the new Regulations Manual will be found, upon inspection, to be in better order and easier to read. We hope, also, that it will be even clearer in its meaning. Naturally it is expected that it will take considerable time to complete this job.

The present plan provides for a series of drafts to be examined and tentatively approved by the Department technical and legal personnel.

We then intend to circulate the most important of these new regulations for the inspection and comment of a select group of persons interested—including representatives of the National Association of State Aviation Officials.

We shall be pleased to have your full and frank expressions thereon, but we shall of course have to reserve to the discretion of the Secretary of Commerce the final decision prior to issuance. When the tentative drafts have been reworked in the light of the best thought and advice thereon, they will be formally issued to take the place of the regulations now in force.

Realizing the far reaching effect of any scheme of such magnitude, we shall be quite as anxious as those subject to the control of the regulations to see that they are not premature nor unsuited to the general objective of all sound control—*the full promotion and development of aviation in all of its phases.*

If you live five years from now, you will find that you have not the least conception of what aviation will be in five years, or what regulations will be necessary. I don't know how close kin you are to Jules Verne, but nobody, not Solomon himself, could prophesy where aviation will go, so when making these regulations, you had better use a loose-leaf book, and from time to time put in new leaves. It will be necessary to change some of these regulations overnight until they become crystallized. Some years hence, instead of 8000 airplanes in the United States there will be 100,000, and you can go and come as you please and there will be no prejudice against flying. It is a business now, and those of you who have exhibited executive ability or financial ability, can grow into this as a business. You will notice that most of the flying men are young, so as time goes on, there will be some older men on the ground who are more stable and conservative. But we have to have pioneers.

These regulations are going to be flexible just as much as possible. We must stop right where there might be a chance for partisanship. For each infringement of a regulation, the required penalty ought to be paid.

As you read the papers of the United States you would think that American aviation was an opportunity to risk your life. I am sorry that Governor Cross spoke about the bathtub. He said the dangers of it were on a par with air traffic in the United States. Our civil aviation in its airways, in the excellence of its equipment, and in safety, is far ahead of the rest of the world. If I recollect, correctly, we are six times as safe as Great Britain, and twelve or thirteen times as safe as the rest of Europe. They have no radio

beacons, and do very little flying at night. There is nobody that even approaches us. The United States airlines flew like this—one 20½ million passenger miles, two flew 70 million, and one 90 million without a single passenger fatality. Don't let anybody fool you that anybody else approaches us in excellence. I think the Federal Aviation Commission was right in saying, in no uncertain terms, that our air lines are superior. We haven't much military and naval equipment, but the quality of our military equipment is superior to that of foreign countries. If we had as many airplanes as Italy has, we would not have enough pilots to fly them.

We, as you know, cannot get along without cooperation. We are perfectly helpless in the Bureau of Air Commerce without cooperation of this body and all the other agencies of the aviation business in the United States. There are any number of bodies that shape the opinions of the aviation activities of America. If there is resistance to any new thought that we suggest, any such body as the Manufacturers' Association, the editors of an aeronautical periodical, and others which desire uniformity, and who desire advancement of civil aviation in the United States, can influence opinion. Through such cooperation the best results can be brought about. We can't do without you and your thinking.

In 1932 there was a certain appropriation advanced for air commerce, and there was a certain volume of aviation activity. In 1935 the moneys allotted were 62% of the 1932 appropriation, and the activities had increased 300%. Now when you say that such and such should be lighted, and this and that done that we don't do, just imagine having 62% of the amount of money that we had in 1932 with 300% more to be done, and then you will find out we have done a pretty good job. Air commerce is six times as safe now as in 1935 with 62% of the money and 300% more load. We aren't discouraged. We are going to continue to give you that much of service with the aid of your cooperation and more uniformity of legislation.

The cordial relationship between the state aviation officials and the Department of Commerce represents a priceless asset to aeronautics. It enables us to work together towards the ends that all of us desire, and to discover the workable course promptly if there is a difference of opinion about details.

Continuance of this good will and cooperation is vitally important, and I am confident it will be continued. For the Department, I can say that we respect and admire your organization and its work. It is my pleasure to congratulate you upon past accomplishments, and to extend my best wishes for the future.

RESOLUTIONS ADOPTED AT SIXTH ANNUAL MEETING

At the afternoon meeting on Saturday, September 26th, the following resolutions were unanimously adopted by the Association:

I.

WHEREAS, the arrangements coincident to the meeting of the Sixth Annual Convention of the National Association of State Aviation Officials have been so thoughtfully and thoroughly made that our work in Hartford has been most interesting, successful and enjoyable,

THEREFORE BE IT RESOLVED, that the sincere appreciation of the Association be expressed to our colleagues and hosts, Commissioner of Aeronautics Charles L. Morris, and his staff, to the Hartford Chamber of Commerce, the Hotel Bond, the United Aircraft Corporation, and to those other civic and business organizations, which have contributed to the gracious hospitality extended to us, and

BE IT FURTHER RESOLVED, that the Secretary of this Association express by letter our appreciation to the aforesaid.

II.

WHEREAS, the development of lighter-than-air craft in civil aviation has now been illustrated by continuous scheduled operation over a period of years, and

WHEREAS, there has never been any loss of life in the commercial operation of numerous lighter-than-air craft over an extended period of a third of a century, and

WHEREAS, the development of lighter-than-air operation for trans-oceanic travel constitutes a refinement of marine navigation which is a logical phase of the general program of aeronautic progress,

THEREFORE BE IT RESOLVED, that we express as the studied judgment of the National Association of State Aviation Officials the opinion that the Bureau of Air Commerce of the United States Department of Commerce should definitely interest itself in a study of the entire subject of lighter-than-air facilities and the adaptation of this form of flight to the commercial requirements of the people of the United States.

III.

WHEREAS, public safety is an organic necessity to the commercial operation of air transportation, in consequence of which the history of the search for public safety has been the first consideration of American aeronautic development, and

WHEREAS, the National Safety Council has cooperated consistently with the efforts of American Aviation in the matter of public safety in aeronautics and to develop constructive education in matters of aeronautic safety,

and to acquaint the public with the determined efforts made by various elements of aviation toward public safety,

THEREFORE BE IT RESOLVED, that the National Association of State Aviation Officials express its appreciation to the National Safety Council for its efforts in this phase of activity.

IV.

WHEREAS, the development of air terminals with adequate ground and traffic facilities for trans-Atlantic and trans-Pacific air services should receive immediate consideration,

THEREFORE BE IT RESOLVED, that the proper federal, state and municipal authorities make an immediate study to determine what facilities are necessary to secure adequate and uniform international air terminal facilities for overseas air transportation services.

V.

WHEREAS, there has been started recently a movement in the State of Wyoming whereby various chambers of commerce, civic organizations and individuals are making a strenuous drive to encourage the use of air mail, passenger and express business, and

WHEREAS, this Association believes the movement should be made nationwide,

THEREFORE BE IT RESOLVED, that the National Association of State Aviation Officials go on record as heartily endorsing such movement and urging all other states in the Union to start similar campaigns insofar as each situation requires.

VI.

WHEREAS, the National Conference of Commissioners on Uniform State Laws and the American Bar Association, at their Los Angeles meetings in 1935, adopted a Uniform Aeronautical Regulatory Act, which is almost identical in scope, purpose and language with the Uniform State Aeronautical Regulatory Act unanimously adopted by the National Association at its 1934 meeting in Cheyenne,

THEREFORE BE IT RESOLVED, that this Association approve the Uniform Aeronautical Regulatory Act and urge its enactment by all States which have not yet passed this act or the Uniform State Aeronautical Regulatory Act already adopted by the Association.

VII.

WHEREAS, civil aeronautics has advanced to the point that it occupies a most important place in the national life, and

WHEREAS, the constantly increasing rate of advancement of civil aeronautics makes it apparent that its relative importance in the national life is rapidly increasing, and

WHEREAS, the responsibility for formulating and establishing agencies to execute a continuing definite and well planned policy for fostering and regulating civil aeronautics, rests with the Congress of the United States, and

WHEREAS, the Rules of Procedure of the two branches of the Congress make it possible for legislation concerning civil aeronautics to be considered by any one of several committees of Congress, and

WHEREAS, no committee of Congress is required by its present Rules of Procedure to accumulate information on and recommend legislation concerning all the phases and problems of civil aeronautics, and

WHEREAS, the aforementioned confused condition arising under the present Rules of Procedure of the Congress has made it impossible for the Congress to formulate and place in operation a definite well-planned and continuing national policy relating to the advancement and regulation of civil aeronautics,

THEREFORE BE IT RESOLVED, that the National Association of State Aviation Officials petition the Congress to so amend its Rules of Procedure as to provide for standing committees on civil aeronautics in both the Senate and House of Representatives.

VIII.

WHEREAS, the developments during the past two years have convincingly demonstrated the need for an organized and comprehensive federal policy affecting civil aviation,

THEREFORE BE IT RESOLVED, that this Association again pledge its full support to the securing of the establishment by the Congress at the earliest possible moment, of a permanent, independent federal aeronautical agency to promote and supervise all phases of civil aviation, in keeping with the broad general proposals of the Federal Aviation Commission in its report of January, 1935, and its accompanying legislative proposal.

IX.

WHEREAS, it appears that the development of aviation must inevitably be retarded by the continued present lack of navigational aids and of publicly owned airports and landing fields, and

WHEREAS, an adequate system of navigational aids along with publicly owned airports form a chain both necessary to the national life and beneficial to the connected local communities in the distribution of mail, the transportation of passenger and express and as a network indispensable to the national safety,

THEREFORE BE IT RESOLVED, that the National Association of State Aviation Officials should urge the state representatives in the national Congress and the federal agencies charged with these responsibilities to supplement their present navigational aids and develop publicly owned airports and landing fields, particularly along federal airways, and

BE IT FURTHER RESOLVED, that the National Association of State Aviation Officials urge the legislative representatives of the various states in the national Congress to develop a permanent federal policy in regard to the installation and maintenance of such aids and airports.

COMMITTEE REPORTS

REPORT OF NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS STANDING COMMITTEE ON AIRPORT RATING*

Your committee on Airport Rating respectfully reports that in approaching this question, the following points have been discussed, and the recommendations are made thereon:

(1) Should airport rating be undertaken by the several states, or is it properly within the jurisdiction of the U. S. Department of Commerce, Bureau of Air Commerce?

(2) If the several states are to undertake the rating of airports, should this be done for the purpose of office records and comparison between states, or for the purpose of dispensing the information to pilots, or for both those purposes?

(3) What uniform standards should be followed, and how much detail is necessary regarding airport facilities and services?

(4) If airport rating is for the use of pilots, what method is best suited to dispensing airport information to the pilot in order that he may be quickly informed of basic airport facts and facilities, without being confused by a mass of unessential details?

In consideration of the first question, your committee feels that the states should undertake the rating of airports. The U. S. Bureau of Air Commerce cannot, under the existing laws, require any airport to be rated unless that port is used as a regular stop on a scheduled inter-state route. The states, however, can and do require licenses for airports, and these licenses can, under most existing laws, include a specific rating.

In consideration of the second question, your committee believes that airports should be rated both for the purpose of office records, and for the purpose of dispensing essential information to pilots.

In consideration of the third question—namely, what uniform standards should be recommended—your committee first had to determine whether the purpose of rating airports was to supply extensive data of a "card-file" nature, in order to ascertain exact information on the minute details of airport facilities and operation, or whether the purpose was to furnish, in a readily-available form, information of importance to the safety and well-being of the flying public, with second thought being given to the ordinary conveniences required by that public. The committee determined that the primary purpose of airport rating is to furnish a guide to pilots, and this report is based on this premise.

A comprehensive study has been made of various airport rating schedules and airport designation systems with a view to recommending a simplified standard and a uniform code for rating airports. The standards of the U. S. Bureau of Air Commerce formed the most detailed basis for our studies, but it is felt that many of the minor items therein may be eliminated from

* Submitted to the annual convention of the National Association of State Aviation Officials, Hartford, Connecticut, September 26, 1936. The Association tabled the report pending submission to the several states, and action will be taken at an early meeting of the Board of Governors.

future rating schedules in the interest of simplicity. The airport specifications, as set forth in the Uniform State Aeronautical Regulatory Act of 1935, are accepted as the minimum requirements for the several classifications, except that, where the Uniform Act left details to be determined by the individual states, we believe that these details should be settled now, so that all states will give the same rating for identical ports.

A. Size of Effective Landing Area:

This matter is the most important from the pilot's standpoint, and we recommend that every effort be directed toward developing airports with at least three runways, each of which shall be at least 2500 feet. We recommend, however, that for the purposes of rating, the following scale be used:

(1) "Airport"—an all-way field at least 1800 feet quare; or a 3 strip field on which each runway is at least 1800′ x 500′ crossing or converging at angles of not less than 40°; or a 2 strip field on which each runway is at least 2500′ x 500′ crossing or converging at an angle of not less than 80°.

(2) "Intermediate field"—an all-way field at least 1500 feet square or a 3 strip field on which each runway is at least 1500′ x 300′ crossing or converging at angles of not less than 40°; or a 2 strip field on which each runway is at least 1800′ x 300′ crossing or converging at an angle of not less than 80°.

(3) "Emergency field"—an all-way field at least 1200 feet square; or a 3 strip field on which each runway is at least 1200′ x 200′ crossing or converging at angles of not less than 30°; or a 2 strip field on which each runway is at least 1200′ x 200′ crossing or converging at an angle of not less than 60°.

(4) "Strip field"—a field which is not less than 1200′ x 200′, and is incapable of receiving a higher rating.

(5) All dimensions given above should be "usable area," and gliding angles over all obstructions shall be computed on a basis of 10-1.

(6) The "effective area" shall further be determined by the altiture above sea level, in accordance with charts provided in Aeronautics Bulletin No. 16, Bureau of Air Commerce.

(7) The maximum gradient shall be not more than 2½%, the mean gradient being not more than 2%.

(8) If a runway field has the effective area for a given rating, but does not meet the requirements of angular convergence of the runways, gliding angle over the obstructions, or gradient requirements, it shall be given the next lower rating than that for which its area qualifies it.

(9) It is further recommended that designation be made on airways maps, to show the location of available landing areas which have not been improved for regular aviation operation, but which have been found by the director to be suitable for some types of operation within the preceding year. The designation of such areas by means of a cross on airways maps, would aid materially in forced or emergency landings, even though the area might be limited in its usefulness.

B. Airport Service Facilities.

The item of airport service facilities is, in the pilot's mind, second only to the size of the landing area. It will be difficult to maintain a constantly

accurate chart of available service facilities, due to their changeable nature. But reasonable accuracy can be assured by diligent and frequent re-checking on the part of the various state aviation departments.

(1) It is recommended that only the following facilities be recorded: availability of aviation fuel and oil, on port; hangar accommodations; availability of mechanic; complete radio equipment, including transmitter and receiver; (if both are not available, no recognition of radio facilities should be given).

(2) It is not deemed necessary or advisable to attempt to record transportation, communication, fire and first aid equipment, snow removal equipment, waiting rooms, etc. These items should only be considered by the Bureau of Air Commerce in regard to a transport rating.

(3) To receive a rating as an "airport," the first three items, mentioned in Section 1, should be available, namely, aviation fuel and oil, hangar, and aircraft mechanic service. If all are not available the port should be given the next lower rating. Radio facilities should be noted, but should not affect the rating. The ratings of "intermediate field," "emergency field," and "strip field" should be available on the basis of area, regardless of the supplementary facilities. The facilities should, however, be noted for pilot reference.

(4) Availability of seaplane ramps and anchorages should also be noted for pilot reference, but should not affect the rating.

C. Airport Lighting Facilities.

(1) In order to receive a rating of "airport," the port should provide adequate beacon, boundary, obstruction, and flood lights, following the specifications of the Bureau of Air Commerce. If all are not available, the field should be given the next lower rating.

(2) The ratings of "intermediate field," "emergency fiield," or "strip field" should not require lighting equipment, but available lights should be recorded for pilot reference.

D. Information Service.

The foregoing has itemized the points to be considered in rating any airport, and has explained the application of the rating. This, however, does not answer the problem of dissemination of the information to pilots.

It is recommended, in this regard, that the "Florida Plan" of map-designation be adopted as standard practice among the several states, and that the Bureau of Air Commerce, and other map-publishing agencies be prevailed upon to accept the information gathered by the states, and to include this on all official airways maps in a style similar to that of the Florida plan.

The following is a table of symbols recommended for uniform adoption:

Commercial or municipal airport—showing shape of landing area.

Bureau of Air Commerce intermediate airport—showing shape of area.

Army, navy, or marine corps airport—showing shape of area.

Possible landing area found suitable for limited operations.

Seaplane port, with ramp and handling facilities.

Seaplane anchorage, with facilities for refueling and for loading and discharging passengers.

Airport Facilities Code

30-22 etc. = Length of 2 longest runways in hundreds of feet. (Width of strip fields shall be indicated, as : 25-5.)
G = Aviation gas and oil available on field.
H = Hangar available for transient planes.
M = Licensed mechanic available.
S = Seaplane Ramp.

Airport Lighting Code

L = Beacon and obstruction lights.
B = Boundary lights.
F = Flood lights.

Radio Code

R = Radio Transmitter and receiver.

If an airport provides all facilities listed, it is recommended that, on the maps, a large "A" be printed, rather than having a long list of all the facilities.

E. Airport Rating Committee.

We recommend further that an officer or a committee of the National Association of State Aviation Officials be appointed annually, to coordinate (and tabulate) the airport rating information of the several states, and to make this information available at all times to the several states, the Bureau of Air Commerce, and all other airways map-publishing agencies.

We believe that this officer, or committee, should be empowered to remove from the files obsolete or obsolescent reports of airports, and that those states failing to return adequate periodic reports on airport conditions, shall be thus removed from the records.

Respectfully submitted,

N.A.S.A.O. Standing Committee on Airport Rating,

CHARLES L. MORRIS, Commissioner of Aeronautics, Connecticut, *Chairman.*

CHARLES S. DION, Technical Advisor, New York.

FRED L. SMITH, Director of Aeronautics, Ohio.

CLARK M. KEE, Airways Engineer, New York.

REPORT OF NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS STANDING COMMITTEE ON COMPULSORY WHEEL BRAKES*

The Committee on Compulsory Wheel Brakes respectfully reports the following:

We have been unable to check the background of this Committee or the reason for its creation, although we believe that from the name itself, we have been able to determine its ultimate objective. It is, of course, well known that an aircraft, while in the element for which it is created and intended to operate, has no need for wheel brakes or tail skids. It is when the aircraft is on the ground that the question of wheel brakes and tail wheel or no wheel brakes and tail skid become important. It may also safely be agreed that all aircraft should have wheel brakes as a general proposition.

In the interest of safety, particularly in the matter of taxiing, an aircraft without brakes may be a dangerous machine, especially where other aircraft are operating nearby or where there are crowds of people; also, where it must from necessity maneuver close to obstructions. Tail wheels add to the ease of moving aircraft when not under power and less man power is required to move the aircraft so equipped than one having a tail skid.

The Committee has found that the operation of aircraft without brakes and with tail skids on an airport has presented quite a problem to the management. In the maintenance of the landing area of an airport, it must be agreed that tail skids ruin the surface and in many cases create a dust nuisance. It is conceivable also that the tail skid, depending upon its design and condition, can be very harmful to bituminous surfaces.

A check of aircraft specifications for the year 1935 reveals that 84% of the aircraft produced were equipped with brakes and 16% had no brakes at all. The 1936 specifications reveal that 91% of the new aircraft were equipped with brakes, 2% were optional, and 7% came out with no brakes at all. This would indicate an approximate increase of 7% in the number of aircraft with brakes and a decrease of 9% in the case of aircraft equipped with no brakes, and a decided indication of brakes being optional in the case of low priced light aircraft. This check would indicate that aircraft manufacturers are tending to produce more aircraft each year equipped with brakes. With the lighter type of aircraft, brakes are quite a problem because of additional cost and due to the slow landing speed they are not an absolute necessity. However, they would be of much value in taxiing, particularly when taxiing in a cross wind, as the average light plane is almost helpless under this condition. There has been some tendency, on the part of instructors, to disconnect brakes on student aircraft, due to the possibility of crack-ups caused by improper use of brakes by students. Insofar as recommendations of this Committee are concerned, this tendency will be found in such small numbers as to be negligible.

There is nothing this Committee can recommend in regard to the older types of aircraft now in use without brakes and having tail skids. This problem is definitely an airport manager's problem. A flat spoon type tail skid shoe would eliminate some of the objection to tail skids on this type of aircraft.

We recommend that the N.A.S.A.O. take this subject up with the Bureau of Air Commerce and work with it toward the end that in the near future all aircraft manufactured shall be equipped with wheel brakes and tail wheels.

Respectfully submitted,

N.A.S.A.O. Standing Committee on Compulsory Wheel Brakes

GEORGE P. KANE, Deputy Commissioner of Aeronautics, State of Connecticut, *Chairman.*

ALFRED MACDONALD, Director, Parks, Forestry, Airports, Wichita, Kansas.

COL. RUBY GARRETT, Missouri.

*** Submitted to the annual convention of the National Association of State Aviation Officials, Hartford, Connecticut, September 26, 1936.**

OFFICERS ELECTED FOR 1936-37

The following officers were elected by the National Association of State Aviation Officials for the year 1936-37:

President—GILL ROBB WILSON, Director, Department of Aviation, State of New Jersey.

First Vice-President—FLOYD E. EVANS, Director, Department of Aeronautics, State of Michigan.

Second Vice-President—A. B. MCMULLEN, Director of Aviation, State of Florida.

Third Vice-President—CHARLES L. MORRIS, Commissioner of Aeronautics, State of Connecticut.

Secretary-Treasurer—FRED D. FAGG, JR., Member, Aeronautics Commission, State of Illinois.

Legal Counsel—GEORGE B. LOGAN, St. Louis, Missouri.

The following Regional Vice-Presidents were elected by the respective regional groups, for the year 1936-37:

North East Region—CAMMY VINET, Chief, Bureau of Aeronautics, State of Pennsylvania.

South East Region—R. O. LINDSAY, Director of Aeronautics, State of Tennessee.

East Central Region—E. B. COLE, Secretary, Aeronautics Commission, State of Illinois.

North Central Region—J. KIRK BALDWIN, State Treasurer, State of Wyoming.

South Central Region—D. O. LANGSTAFF, Director of Aviation, State of Louisiana.

South West Region—ALFRED MERRITT SMITH, State Engineer, State of Nevada.

North West Region—DR. RAYMOND R. STAUB, Chairman, Board of Aeronautics, State of Oregon.

AERONAUTIC RISK EXCLUSION IN LIFE INSURANCE CONTRACTS*

FRED M. GLASS†

III. STATUTORY LIMITATIONS.

In General:

The matter of construction of terms was not by any means the only obstacle facing insurers in the effective use of specific clauses as excluding from coverage risks connected with aeronautical flight. In practically every state the inclusion of a clause in all policies making such contract incontestable after the expiration of an arbitrary period, usually one or two years from the date coverage began thereunder,[173] was required by statute,[174] resulting immediately upon the adoption of these aeronautical clauses in the rather doubtful query as to whether or not such exclusion was not in fact a limitation upon the force and effect of such incontestable clause and a

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* Continued from the July issue, 7 JOURNAL OF AIR LAW 305 (1936).

† Graduate student, Northwestern University School of Law, 1935-36.

173. *Jefferson Standard Life Ins. Co.* v. *Wilson*, 260 F. 593, 171 C. C. A. 357 (1919); *New York Life Ins. Co.* v. *McCarthy*, 22 F. (2d) 241 (C. C. A. 1927); *Schwartz* v. *Northern Life Ins. Co.*, 25 F. (2d) 555 (1928), cert. denied, 278 U. S. 628, 49 S. Ct. 29, 73 L. Ed. 547 (1928).

174. A typical statute follows: "No policy of life insurance shall be issued in this state or be issued by a life insurance company organized under the laws of this state unless the same shall contain the following provisions: . . . (3) A provision that the policy shall constitute the entire contract between the parties and shall be incontestable after two years from its date, except for non-payment of premiums and except for violations of the conditions of the policy relating to military or naval services in time of war."

See: *Ala. Code Ann.* (1928) §8365; *Rev. Code Ariz.* (Struckmeyer 1928) §1847 (3); *Gen. Laws Cal.* (1932) c. 145, §10206 (group insurance); *Comp. Laws Col.* (1932) §2516(2), §2595 (b) (group insurance); *Laws Del.* (1921) §606(3); *Dist. Col. Pub. Act.* 436, c. 5, §3(3) (73 Cong. 1934); *Idaho Code Ann.* (1932) §40-1303(2); *Ill. Ann. Stat.* (Smith-Hurd, 1935) c. 73, §261(3); *Ind. Stat.* (Burns, 1933) §39-801(3) (double indemnity may be excepted if desired); *Code Iowa* (1935) c. 399-E1, §8684-e5(1) (group insurance); *Rev. Stat. Kans.* (1933) §40-420(2) (disability and accidental death benefits may be excepted at the option of insurer); *Rev. Stat. Maine* (1930) c. 60, §147 (total and permanent disability may also be excepted at option of insurer); *Ann. Laws Mass.* (1932) c. 175, §132(2) (total and permanent disability may also be excepted at option of insurer); *Comp. Laws Mich.* (1929) §12427 (double indemnity and disability provisions may be excepted also at option of company); *Minn. Stat.* (Mason, 1927) c. 74, §3426 (double indemnity and disability provisions may also be excepted at option of insurer); *Comp. Stat. Neb.* (1929) §44-602(5); *Cons. Laws N. Y.* (Cahill, 1930) c. 30, §101 (disability and double indemnity may also be excepted at option of insurer); *N. C. Code* (1935) §6466(b) (group insurance); *Comp. Laws of N. D.* (1913) §6635(c); *N. M. Stat.* (1929) §71-161(3) (aviation a part of statutory exceptions); *Ohio Ann. Code* (Throckmorton, 1934) §9411; *Okla. Stat.* (1931) §10524(3); *Oregon Code Ann.* (1930) §46-506; *Penn. Stat.* (Purdon, 1930) §40-510(c); *Tenn. Code Ann.* (Williams, 1934) §6179(3); *Rev. Stat. Utah* (1933) §43-3-24(3); *Rev. Civ. Stat. Tex.* (1925) §4732(4); *Va. Code Ann.* (1930) §4228; *Rev. Stat. Wash.* (Remington, 1932) §7230(2); *Wyom. Rev. Stat.* (1931) §57-232(3).

"contest" of the policy within the meaning of such clause. Prior judicial decision upon analogous attempted limitations of risk gave ample room for conjecture as to such a probability.[175] Of similar degree of importance were the rather common statutes prohibiting the inclusion in a policy of any provisions for mode of settlement at maturity of less value than the amount insured by the policy, plus dividend additions, if any, less any indebtedness to the company on the policy and less any premium that might by the terms of the policy be deducted.[176]

Incontestable Clause:

Conflicting Views—"The object of the clause is plain and laudable—to create an absolute assurance of the benefit, as free as may be from any dispute of fact except the fact of death."

Thus spoke the United States Supreme Court through Justice Holmes in determining the effect of an incontestable clause upon a provision declaring the policy void in case of suicide of the insured, contained in the contract involved in the famous *Northwestern Mutual Life Ins. Co.* v. *Johnson* decision.[177]

Consistent with this view promulgated by the nation's highest tribunal, an imposing array of state and federal courts have construed such clause as meaning that by agreement of the parties, the cause of death has ceased to be an issue of fact, and that the at-

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175. *Northwestern Mutual Life Ins. Co.* v. *Johnson*, 254 U. S. 96, 41 Sup. Ct. 47, 55 A. L. R. 549 (1920) (suicide) affirming *Northwestern Mutual Life Ins. Co.* v. *Johnson*, *Nat. Life Ins. Co. of Montpelier, Vt.* v. *Miller*, 275 F. 757 (C. C. A. 6th, 1921); *Philadelphia Life Ins. Co.* v. *Burgess, et al.*, 18 F (2d) 599 (D. C. S. C., 1927) (suicide); *Standard Life Ins. Co.* v. *Robbs*, 177 Ark. 275, 6 S. W. (2d) 520 (1928) (suicide); *Mutual Life Ins. Co. of N. Y.* v. *Lovejoy*, 201 Ala. 337, 78 So. 299 (1917) (suicide); *Mass. Benefit Life Ass'n* v. *Robinson*, 104 Ga. 256, 30 S. E. 918, 42 L. R. A. 274 (1898) (misrepresentations as to habits); *Royal Circle* v. *Achterrath*, 204 Ill. 549, 68 N. E. 492 (1903) (suicide); *Goodwin* v. *Prov. Sav. Life Assurance Ass'n of N. Y.*, 97 Iowa 226, 66 N. W. 157 (1896) (death by own hands); *Supreme Court of Honor* v. *Updegraff*, 68 Kan. 474, 75 Pac. 477 (1904) (suicide); *Mareck* v. *Mutual Reserve Fund Life Ass'n*, 62 Minn. 39, 64 N. W. 68, 58 Am. St. Rep. 613 (1895) (death at own hands); *Mutual Reserve Fund Life Ass'n* v. *Payne*, 32 S. W. 1063 (Tex., 1895) (death by own hands). See also 31 A. L. R. 103.

176. Typical of such statutes is the following: "No policy of insurance shall be issued or delivered in this state if it contains any of the following provisions: . . . (4) A provision for any mode of settlement at maturity of less value than the amount insured by the policy plus dividend additions, if any, less any indebtedness to the company on the policy and less any premium that may by the terms of the policy be deducted, payments to be made in accordance with the terms of the policy." *Indiana Statutes* (Burns, 1933) §39-802(3). See also *Idaho Code Ann.* (1932) §40-1304; *Ill. Ann. Stat.* (Smith-Hurd, 1935) c. 73, §262; *Rev. Stat. Kan.* (1933) §40-421; *Comp. Laws Mich.* (1929) §12295; *Minn. Stat.* (Mason, 1927) c. 74 §3406; *Comp. Stat. Neb.* (1929) §44-603; *Comp. Laws N. D.* (1913) §6635(d)(4); *Ohio Ann. Code* (Throckmorton, 1934) §9421(5); *Okla. Stat.* (1931) §10525(3); *Penn. Stat.* (Purdon, 1930) §40-511(d); *Tenn. Code Ann.* (Williams, 1934) §6180(4); *Rev. Stat. Tex.* (1925) §4733(3); *Wyom. Rev. Stat.* (1931) §57-233.

177. 254 U. S. 96, 41 Sup. Ct. 47; see also 55 A. L. R. 549 (1920).

tempt to escape liability on the part of the insurer by asserting death from any cause other than those specified within the incontestable clause itself was a *contest* of the policy and therefore in direct conflict with such clause.[178]

In arriving at such determination, four judicial principles evolve as the grounds most consistently used by the courts: (1) that by inclusion of the incontestable clause the insurer proffers to the insured that if he pays the premiums on a policy that not only will the *contract* be incontestable, but the *right to recover* the death benefit shall be likewise incontestable; (2) *expressio unius est exclusio alterius*[179]—by making express exceptions within the incontestable clause itself, there can be no further exceptions; (3) the time limit set within the terms of the incontestable clause shall govern the entire contract—and the validity of any clause providing that such contract does not cover death from a specified cause ends with the expiration of such time limit; (4) ambiguity in any insurance policy must be resolved against the insurer.[180]

Various courts, however, began to slowly break away from the preponderance of cases ruling that the incontestable clause was all-controlling in life policies,[181] and in distinguishing between express risk exclusions and forfeitures and conditions, ruled that a provision for incontestability does not have the effect of converting a provision to pay on the happening of a stated contingency into a promise to pay whether such contingency does or does not happen.[182] A party to the instrument could not, according to these decisions,

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178. Note 175. Typical of the view adopted by these courts is the following: "Construing this contract as a whole, it seems that if the insured died within two years of its date, the insurance company may contest the cause of death, or may set up fraud, or misrepresentation in the procurement of the insurance, or any other matter that would be a defense to the action on the policy; but if he does not die within two years from issuance of policy, and he pays all the premiums agreed to be paid, then the insurance company will not contest, or refuse the payment of the amount agreed to be paid on any ground whatever. . . . The company agreed that it would not litigate any of these questions, though without the incontestable clause they would be a defense." (*Mutual Life Ins. Co.* v. *Lovejoy*, note 175.)

179. For numerous citations, recognizing, explaining, and adopting this legal maxim, see 25 C. J. 220.

180. Note 43.

181. Note 175.

182. *Sanders* v. *Jefferson Standard Life Ins. Co.*, 10 F. (2d) 143 (C. C. A. 5th, 1925) (insured murdered); *Hearin* v. *Standard Life Ins. Co.*, 8 F. (2d) 202 (D. C. E. D. Ark., 1925) (suicide); *Conn. Gen. Life Ins. Co.* v. *Mack*, 12 F. (2d) 416 (C. C. A. 8th, 1926), cert. denied, 271 U. S. 687 (suicide); *Flannagan* v. *Provident Life & Acc. Ins. Co. et al*, 22 F. (2d) 136 (C. C. A. 4th, 1927) (injured while intoxicated); *Wright* v. *Philadelphia Life Ins. Co.*, 25 F. (2d) 514 (D. C. S. C., 1927) (suicide); *Collins* v. *Metropolitan Life Ins. Co.*, 133 Ill. App. 326 (1907) (reversed on other grounds, 232 Ill. 37, 83 N. E. 542) (execution for crime); *Myers* v. *Liberty Life Ins. Co.*, 124 Kan. 191, 257 P. 933 (1927) (suicide); *Stean* v. *Occidental Life Ins. Co.*, 24 N. M. 346, 171 P. 786 (1918) (suicide); *Scarborough* v. *American Nat. Ins. Co.*, 171 N. C. 353, 88

be said to be contesting the policy by raising the question as to whether under the terms a liability asserted by another party had or had not accrued.

Particularly outstanding in this development were the cases involving suicide clauses,[183] which ordinarily provided that suicide was a risk not assumed, and that in event of suicide, the policy was void, or the company would return the premiums with interest, the cash surrender value, or some other amount. Pertinent also were the decisions to the effect that the insurer was not *contesting* the policy by denying coverage where the insured was executed for violation of law,[184] and a Federal court decision[185] that the insurer did not *contest* the policy by relying on a stipulation that the policy did not cover death of the insured if he was killed "while under the influence of narcotics . . . or while violating the law." This view was further supported by two decisions to the effect that it was not *contesting* a policy to rely on a clause excluding death from injuries intentionally inflicted by another,[186] while a New York court concluded that it was not a contest of a policy to insist on a provision that, if the insured misstated his age, the amount of insurance should be adjusted to what the premiums would have purchased at the insured's correct age.[187]

The exclusion of specific risks from the double indemnity pro-

S. E. 482, L. R. A. 1918A, 896, Ann. Cas. 1917D, 1181 (1916) (execution for crime); *Jolley* v. *Jefferson Standard Life Ins. Co.*, 199 N. C. 269, 154 S. E. 400 (1930) (intentionally shot); *Sipp* v. *Philadelphia Life Ins. Co.*, 293 Pa. 292, 132 A. 221 (1928) (age misrepresentation); *Childress* v. *Fraternal Union*, 113 Tenn. 252, 82 S. W. 832, 3 Ann. Cas. 236 (1904) (suicide); *Scales* v. *Jefferson Standard Life Ins. Co.*, 155 Tenn. 412, 295 S. W. 58 (1927) (suicide); *Woodbery* v. *New York Life Ins. Co.*, 129 Misc. Rep. 365, 221 N. Y. S. 357 (1927) (suicide); *Murphy* v. *Travelers Ins. Co.*, 134 Misc. Rep. 238, 234 N. Y. S. 278 (1928) (age misrepresentation); *Howard* v. *Missouri State Life Ins. Co.*, 289 S. W. 114 (Texas, 1927) (suicide); *United Security Life Ins. Co.* v. *Massey, et al*, 164 S. E. 529 (Va., 1932) (change of employment). See *Vance*, Insurance, *op. cit.*, p. 821, §231.

183. Full citation of the following cases appears in note 182. *Hearin* v. *Standard Life Ins. Co.*; *Conn. Gen. Life Ins. Co.* v. *Mack*; *Wright* v. *Philadelphia Life Ins. Co.*; *Myers* v. *Liberty Life Ins. Co.*; *Stean* v. *Occidental Life Ins. Co.*; *Childress* v. *Fraternal Union*; *Scales* v. *Jefferson Standard Life Ins. Co.*; *Woodbery* v. *New York Life Ins. Co.*; *Howard* v. *Missouri State Life Ins. Co.*

184. *Collins* v. *Met. Life Ins. Co.*, 133 Ill. App. 326 (1907) (reversed on other grounds, 232 Ill. 37, 83 N. E. 542); *Scarborough* v. *American National Life Ins. Co.*, 171 N. E. 353, 88 S. E. 482, L. R. A. 1918A, 896, Ann. Cas. 1917D, 1181.

185. *Flannagan* v. *Prov. Life & Acc. Ins. Co.*, 22 F. (2d) 136 (C. C. A. 4th, 1927).

186. *Sanders* v. *Jefferson Standard Life Ins. Co.*, note 182; *Jolley* v. *Jefferson Standard Life Ins. Co.*, note 182; "By the use of the term 'incontestable' the parties must necessarily mean that the provisions of the policy shall not be contested, and not that the insurance company agrees to waive the right to defend itself against a risk which it never contracted to assume. That is to say, the application of the incontestable clause precludes an insurance company from questioning the validity of the contract in its inception, or that it thereafter became invalid by reason of a broken condition. Hence, an ordinary incontestable clause, cannot be used as a means of rewriting into the contract risks and hazards which the policy itself positively excluded."

187. *Murphy* v. *Travelers Ins. Co.*, 134 Misc. Rep. 238, 234 N. Y. S. 278 (1928).

vision for accidental death issued with a large percentage of life policies, necessarily emphasized the query as to whether or not the incontestable clause contained in the policy extended to and covered such double indemnity provision. For some years the question remained in doubt, though the courts of two jurisdictions have since decided in the affirmative,[188] and three additional consistent decisions[189] go to great lengths in determining whether or not certain risk exclusions in the double indemnity provision were voided by the terms of the particular incontestable clause, thus holding by the strongest implication that such addition is within the scope of such incontestability provision unless the contrary is specifically stated within the wording of the clause itself.

Conway Rule as to Aviation Riders—It remained, however, for the New York Court of Appeals, speaking through Chief Justice Cardozo in the 1930 *Metropolitan Life Ins. Co.* v. *Conway, Supt. of Insurance*[190] case to judicially establish the validity of aviation exclusion riders in the case of policies containing statutory incontestable clauses not in themselves listing aviation as an exception from the force and effect of such clause, by distinguishing between assumption and non-assumption of risk. The litigation arose on the refusal of the New York Superintendent of Insurance to permit the use of the following rider for life policies because of its alleged conflict with the state statutory incontestable clause,[191] which made the policy incontestable after it had been in force for two years, except for non-payment of premiums and for violation of the conditions of the policy relating to military or naval service in time of war:

"Death as a result of service, travel or flight in any species of aircraft, except as a fare-paying passenger, is a risk not assumed under this policy; but if the insured shall die as a result, directly or indirectly, of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy."

In distinguishing between the case before him and the landmark *Northwestern Mutual Life Ins. Co.* v. *Johnson* decision[192] to the effect that the object of the incontestable clause is to create an absolute assurance of benefit free from any dispute of death, Justice Cardozo classified the exception clause in the *Johnson* case as a

188. *Fishel* v. *Union Central Life Ins. Co.*, 151 Misc. Rep. 153, 270 N. Y. S. 734 (1933); *Provident Life and Accident Ins. Co.* v. *Rimmer*, 157 Tenn. 597, 12 S. W. (2d) 365 (1928).
189. *Ness* v. *Mutual Life Ins. Co.*, 70 F. (2d) 59 (C. C. A. 4th, 1934); *Sanders* v. *Jefferson Stan. Life Ins. Co.*, note 182; *Jolley* v. *Jefferson Standard Life Ins. Co.*, note 182.
190. 252 N. Y. 449, 169 N. E. 642 (1930).
191. *Consolidated Laws* (New York, 1909) c. 28, §101.
192. Note 177.

forfeiture provision in contradistinction to a limitation as to coverage, and held that therefore the incontestable clause therein involved, coupled with the payment of premiums, would sustain a recovery in the face of any forfeiting condition. It was quite another thing, however, according to Cardozo, to say that the same facts would prevail against a refusal to assume the risk.

After disposing of the alleged binding effect of the *Johnson* case, the New York court concluded to the effect that the provision stating a policy to be incontestable after it had been in force during the lifetime of the insured for a period of two years is not a mandate as to coverage nor a definition of the hazards to be borne by the insurer, but means instead only that within the limits of the coverage the policy shall stand, unaffected by any defense that it was invalid in its inception or thereafter became invalid by reason of a condition broken. A provision for incontestability was described as not having the effect of converting a promise to pay on the happening of a stated contingency into a promise to pay whether such contingency does or does not happen, as where there has been no assumption of risk there can be no liability.

Construction as to Aviation Riders Subsequent to Conway Decision—This distinction between limitation on the coverage and limitation on a defense of invalidity, resulting in approval of the efficacy of aviation risk exclusion clauses even in policies containing statutory incontestable clauses not in themselves excepting such risk, was given unequivocal approval by the Circuit Court of Appeals of the Tenth Circuit in the case of *Head* v. *New York Life Ins. Co.*[193] just a few months subsequent to its first promulgation by the New York court.

Though only two state courts[194] have had occasion since the *Conway* case in 1930 to pass upon the point therein involved, directly contra results have been reached by these two tribunals. The Washington court, when faced in 1933 in the case of *Pacific Mutual Life Ins. Co.* v. *Fishback*[195] with precisely the identical situation involved in the *Conway* case,[196] adopted without reservation the

193. 43 F. (2d) 517 (C. C. A. 10th, 1930). (Insured was killed in an airplane accident subsequent to the expiration of the contestable period. Suit was brought on the double indemnity clause of the policy. Insurer relied on the aeronautic risk exception clause, while the insured's beneficiary relied on the incontestable clause.)

194. Louisiana and Washington.

195. 171 Wash. 244, 17 P. (2d) 841 (1933).

196. The Washington statutory clause (Remington's *Comp. Stat.* (1932) §§7229, 9230) excepted only non-payment of premiums and violation of policy conditions relating to military or naval service in time of war from the force and effect of such clause. The proposed aviation clause which was rejected by the insurance commissioner, Fishback, in this case follows: "Except as herein below provided, death resulting directly or indirectly, in whole or in part, from being in or on any vehicle or mechanical device for aerial navigation, or from

latter decision both as to reasoning and result. The Supreme Court of Louisiana, however, in the case of *Bernier* v. *Pacific Mutual Life Ins. Co.*[197] involving a specific aviation risk exclusion[198] and an incontestable clause which in itself listed as exceptions non-payment of premiums and violation of the conditions of the policy relating to military or naval service in time of war, distinguished between the facts therein involved and those faced by the court in the *Conway* decision. The latter case was interpreted by the Louisiana court as authority for the proposition merely that a life insurance company may, without doing violence to a provision making the policy incontestable after a stated period, except from the so-called *coverage,* or risk assumed, any cause of death that the company sees fit to except, provided, that the *exception* shall be expressed so plainly in the policy as to leave no reasonable doubt that the *exception* is to remain after the policy shall have become otherwise *incontestable.* Listing of specific exceptions in the incontestable clause itself, and failure to include the aviation risk exception therein was interpreted on the basis of the *inclusio unius est exclusio alterius* maxim[199] as of necessity denying effect to such aviation clause after the expiration of the incontestable period.

Statutes Prohibiting Settlement for Less Than Face Amount:

In construing the applicability of such statutory requisites to various queries arising thereunder, the Texas courts which have been by far the most prolific, have repeatedly ruled invalid policy provisions for payment of less than the maximum value of the policy in event of death resulting from certain causes, or occurring within a certain time.[200] Such view was even adopted by the

falling therefrom or therewith, or while operating or handling any such vehicle or device, is a risk not assumed under this Policy, but in the event of death, so occurring, the Company will pay the reserve under this Policy, and the Policy shall thereupon be terminated . . . ."

197. 173 La. 1078, 139 So. 629 (1932).

198. "It is hereby understood and agreed, in the event of death of the insured arising in whole or in part, directly or indirectly, from engaging in aerial navigation, except while riding as a fare-paying passenger in a licensed commercial aircraft provided by an incorporated common carrier for passenger service, and while such aircraft is operated by a licensed transport pilot and is flying on a regular civil airway between definitely established airports, the only liability under the policy shall be for a sum equal to the premiums paid thereon, and the policy shall thereupon terminate."

199. Note 179.

200. *First Texas State Ins. Co.* v. *Smalley,* 233 S. W. 314 (Tex. Civ. App. 1921); *Amer. Nat. Ins. Co.* v. *Dixon,* 231 S. W. 165 (Tex. Civ. App. 1921); *Amer. Nat. Ins. Co.* v. *Hawkins,* 189 S. W. 330 (Tex. Civ. App. 1916); *First Texas State Ins. Co.* v. *Bell,* 184 S. W. 277 (Tex. Civ. App. 1916).

The statute involved in these cases was Sub. 3 of Art. 4742 of the *Rev. Stat. of 1911,* providing that no policy of life insurance shall be issued or delivered in this state, or be issued by a life insurance company incorporated under the laws of this state, if it contains: "A provision for any mode of settlement at maturity of less value than the amounts insured on the face of the policy, plus dividend additions, if any, less indebtedness to the company on the policy, and less any premium that may, by the terms of the policy be deducted; provided, that any

judiciary of this state where such provisions appeared on the *face* of the policy.[201]

Inclusion of aeronautical exceptions and exclusions in the body of the policy by the majority of companies without particular effort to print it on the first page thereof, necessarily brought into prominence in this connection the decisions inconsistently determinative of what constituted the *face* of the policy.[202] Texas decisions tend toward the strict interpretation of such word as meaning the first part of the policy,[203] while more recent authority of another jurisdiction is to be found construing such term as referring to the entire policy contract.[204]

Concern was likewise at one time felt as to whether double indemnity provisions in life policies were not in themselves accident provisions and therefore subject to not uncommon statutes prohibiting the inclusion of exceptions as to the coverage of accident policies otherwise than on the *face* of the contract. Such doubt, has, however, been removed by comparatively recent decisions rejecting the classification of double indemnity provisions in life policies as accident insurance.[205]

A distinction has apparently been drawn by the courts between contracts providing on the occurrence of some specified risk for return of a specified sum less than the total value of such policy,

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company may issue a policy promising a benefit less than the full benefit in case of the death of the insured by his own hand or while following stated hazardous occupations." For analogous statutes in other states see note 176.

201. *First Texas State Ins. Co.* v. *Smalley, et al.*, 111 Tex. Rep. 68, 228 S. W. 550 (1921).

202. *First Texas Prudential Ins. Co.* v. *Smallwood*, 242 S. W. 498 (Tex. Civ. App. 1922); *Amer. Nat. Life Ins. Co.* v. *Walker*, 256 S. W. 950 (Tex. Civ. App. 1923); *Julius* v. *Metropolitan Life Ins. Co.*, 299 Ill. 343, 132 N. E. 435, 17 A. L. R. 956 (1921).

203. *First Texas Prud. Ins. Co.* v. *Smallwood, ibid; Amer. Nat. Life Ins. Co.* v. *Walker, ibid.*

204. *Julius* v. *Metropolitan Life Ins. Co.*, note 202: "The face of an insurance policy is the entire insurance contract contained in the policy. To construe the term to mean the first page of the policy would compel the insurance companies to print the policies on a sheet of paper large enough to accommodate all the terms and conditions on the front of the sheet. Such a requirement would find no support in reason or in law. * * *

"The object of the statute is to prevent the insurance company from inserting provisions in its policy provisions for optional modes of settlement professedly for the benefit of the insured, but which in fact, provides modes of settlement of less value than the amount fixed in the insurance contract which the insured or beneficiary might have paid to him in one sum. . . . The face of the policy under consideration is all the matter printed on the first three pages, together with the riders attached and made a part of the policy by reference."

205. *Mutual Benefit Health & Acc. Ass'n of Omaha, Neb.* v. *Bell*, 49 Ga. App. 640, 176 S. E. 124 (1934); *Logan* v. *Fidelity & Casualty Co. of N. Y.*, 146 Mo. 114, 47 S. W. 948 (1900); *Purcell* v. *Wash. Fidelity Nat. Ins. Co.*, 141 Ore. 98, 16 P. (2d) 639 (1932); *Fishel* v. *Union Central Life Ins. Co.*, 151 Misc. 153, 270 N. Y. S. 734 (1933); *Provident Life & Acc. Ins. Co.* v. *Rimmer*, 157 Tenn. 597, 12 S. W. (2d) 365 (1928). See also Ch. 74, *Minn. Laws* 1935 to the effect that the standard accident and health policy provision was inapplicable to disability or accidental death provisions supplemental to life or annuity contracts; and reversing the rule adopted in this state as a result of the prior decision of *Joyce* v. *New York Life Insurance Company*, 250 N. W. 674, 255 N. W. 927, adopting the contrary view. See also the following pertinent statutes: *Laws Cal.* (1935), c. 145, §10271; *Ind. Stat.* (Burns' Supp. 1935) §39-4306 (k) (2); *Comp. Stat.* N. J. (1910, amend. c. 97, L. 1935) §99, p. 2871; *Penn. Stat.* (Supp. 1928, amend. Act 359, L. 1935) §12490 (b)-629 (b); *W. Va. Acts* (1935) c. 56, §20 (b).

and those providing for the return of premiums paid or the reserve, as affected by the statutes prohibiting inclusion of provisions in a policy for settlement at less than the face amount thereof. Illustrative of this distinction is an Ohio decision[206] construing a specific suicide clause as a "risk not assumed," and interpreting the return of premiums therein promised by the insurer in event insured met death in this manner, to be mere generosity on the part of the insurer, not affected in any way by such statute as mentioned above.

Opinions of State Insurance Commissioners:

In order to definitely ascertain the opinions of the state insurance commisioners, in the light of statutory incontestable clauses and statutes prohibiting settlement for less than face amount of contract, as to the issuance of policies in their respective states, with aviation exclusion riders similar to that approved by the New York court in the *Conway* case, the American Life Convention[207] submitted, immediately subsequent to the promulgation of that opinion in 1930, the following rider to the commissioners of the forty-eight states and the District of Columbia:

"Death as a result of service, travel or flight in any species of aircraft, except as a fare-paying passenger, is a risk not assumed under this policy; but, if the insured shall die as a result, directly or indirectly, of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy."

Three queries concerning the rider were propounded to the commissioners:

(1) Will your department object to the use of a rider, or provision, in language similar to the above, when presented to your department for approval?

(2) If the response to query one is answered in the affirmative, may total and permanent disability provisions specifically except a loss from such hazard?

(3) May double indemnity provisions contain a like exception?

Though the replies to query one failed to approach any marked degree of unanimity, there was nevertheless a rather surprising degree of uniformity in the answers. Thirty-five of the replies expressed unqualified approval of the use of the riders;[208] four ap-

206. *Western & So. Life Ins. Co.* v. *Horne*, 100 Ohio St. 478, 137 N. E. 416 (1919).

207. Executive Offices, 230 N. Michigan Avenue, Chicago, Illinois.

208. Alabama, Arizona, Arkansas, Colorado, Connecticut, Delaware, Dist. of Columbia, Florida, Georgia, Idaho, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Mississippi, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, Wisconsin and Wyoming.

proved with qualifications;[209] eight disapproved;[210] one refused to comment;[211] while one refused to permit the aviation exception in a rider, but approved of such exclusion in a policy provision.[212] Queries two and three were unanimously answered in the affirmative.

Since the date of these opinions, however, the aviation exclusion rider has been approved by the State of Oregon,[213] and the States of Washington and Louisiana have each been forced to reverse the stands taken by their respective commissioners because of judicial decisions.[214] At the present time, it may be generally asserted that aviation exclusions in life policies will meet with approval in thirty-two states and the District of Columbia, while the validity of such exclusions remains doubtful in the remaining sixteen states.[215]

IV. History and Development of Aeronautical Exceptions.

In General:

Though recognized for more than two decades as an insurance risk,[216] aviation has never generally been excluded from coverage by specific provision within the policy itself, but instead has either been fully covered or else excepted by riders attached to such policy.[217] Full coverage, however, has been granted only after

209. California (insured must understand and accept provision); Indiana (applicant must sign a written consent to such modification, and policy must show on title page that it contains provisions modifying coverage for aviation death); Missouri (will approve provided modifications are made for refund to beneficiary of premiums paid on policy, instead of payment of reserve); Utah (did not pass directly on queries presented—merely quoted opinion of Attorney General to effect that aviation rider was valid if death occurred within ten years from date of issuance of policy).

210. Illinois, Michigan, Minnesota, North Dakota, Oklahoma, South Dakota, Texas and Washington.

211. Oregon.

212. Nebraska: "Department has no objection to the inclusion of a policy provision, excluding the aviation risk, but a rider to the same effect will not be approved. Disability and double indemnity provisions may contain like exceptions."

213. Approved March 27, 1934, as a result of opinion to Insurance Commissioner Averill by Attorney General Van Winkle.

214. *Bernier (Leidenger)* v. *Pacific Mutual Life Ins. Co.*, note 197; *Pacific Mutual Life Ins. Co.* v. *Fishback as Ins. Com.*, note 195.

215. Tennessee, Michigan, Minnesota, North Dakota, South Dakota, Oklahoma, Louisiana, Idaho, Indiana, Kansas, Missouri, Nebraska, Ohio, Pennsylvania, Wyoming and Illinois. (The Insurance Code proposed before the last session of the Illinois legislature contained a provision (Art. 1, Sec. 229 (3)) specifically excepting from the statutory incontestable clause, non-payment of premiums, violation of conditions of the policy relating to naval or military service in time of war, and *violation of an express condition, if any, relating to aviation.* Provision is further made that in the latter case, the liability of the company may be limited to a definitely determinable reduced amount, which shall not be less than the full reserve of the policy and any dividend additions.)

216. *Supra* p. 306.

217. *J. E. Hoskins*, "Aviation and Life Insurance," National Aeronautical Magazine, April, 1936, p. 18, at p. 36: "There is one point in which the treatment of applicants with aviation hazard does differ from general life insurance practice, namely, the use of the so-called Aviation Exclusion Rider. Policies are sometimes issued which reduce the death benefit if death occurs as a result

specific inquiry into the aeronautical activities of a prospective insured in the form of application queries, supplemented by independent company investigations.[218] Complete rejection of applicants exposed to aviation risks resulted in those jurisdictions which, either because of a statutory incontestable clause[219] or prohibitions against settlement for less than the face amount[220] provisions, denied efficacy to riders or policy provisions excluding such risks.

Almost without exception, however, in common with certain other extraordinary risks, aviation has been specifically excluded from disability and accidental death provisions, the result being that these clauses afford by far the most fertile field for study of the development and evolution of aviation risk exceptions.[221] Even in the comparatively rare situations where such exceptions were included within the body of the policy, language identical with that of these disability and accidental death exclusions has been generally employed.[222]

Disability and Double Indemnity Provisions:

Complete lack of uniformity in the expression of aeronautical risk exception on the part of the various insurance companies[223] has, of necessity, involved in this study a detailed examination of the policies of each separate company. However, the evident impracticability of the presentation of such a study here makes it mandatory to limit this discussion to the evolution of the exceptions used over the past two decades by ten well-known and representative insurance companies.[224]

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of aviation. Sometimes flying as a passenger on scheduled lines is permitted and, in other cases, any flying as a fare-paying passenger. This type of exclusion is almost unique in life insurance. The only other hazard which is ever excluded for more than the first two years of a policy is war service. (The vast majority of policies are written without either of these restrictions.) The reasons why life insurance companies write policies which exclude the hazard of death while engaged as a pilot, and not policies which exclude coverage while engaged as a yard switchman, are: (1) purchasers of large amounts of insurance are more liable to be engaged in flying than in any other hazardous pursuit; (2) men now in business or professional positions are more liable to take up aviation than they are to turn to some other hazardous occupation; (3) the difference in risk between the best and worst pilots is unusually great." (Italics are the author's.)

218. See pages 6 and 7.

219. Note 174.

220. Note 176.

221. The 1935 Handy Guide to Standard and Special Contracts, and Premium Rates, Non-Forfeiture Values, Dividends, Net Costs and Annuities. The Spectator, 1913 to 1935, inclusive.

222. *Ibid.*

223. The 1935 Handy Guide (note 221) lists 173 companies doing business in the United States and Canada.

224. Connecticut General Life Insurance Company, Hartford, Connecticut; Connecticut Mutual Life Insurance Company, Hartford, Connecticut; Continental Assurance Company, Chicago, Illinois; Equitable Life Assurance Society of the United States, New York, New York; Lincoln National Life Insurance Company, Fort Wayne, Indiana; Massachusetts Mutual Life Insurance Company, Springfield, Massachusetts; Mutual Life Insurance Company of New York, New York, New York; Penn Mutual Life Insurance Company, Philadelphia,

While *participating in or in consequence of having participated in aeronautics,* and *engaged in aeronautics*[225] appear to have been rather consistently used prior to the landmark *Bew* v. *Travelers Insurance Co.* case[226] in 1921, (though in spite of the approval of the *participate* exception in this case as covering a casual passenger in a plane), a general flurry of revamping of these exceptions in the light of possible future developments in aviation resulted from the innuendo of the decision suggesting *engage* to refer only to one taking an active part in the operation of a plane, and *participate* as having general efficacy only so long as aviation remained a non-occupational activity.[227]

Developments 1921-1936—Equitable Life and Lincoln National adopted *engaging as passenger or otherwise* exceptions, the former using the exception with *submarine and aeronautic expeditions,*[228] while the latter employed *aerial flight or submarine descent*[229] as expressive of the activity excepted from coverage. Connecticut Mutual varied only in the use of *aeronautic or submarine operations,*[230] while Prudential failed to include the *as passenger or otherwise* phrase and added *or in military or naval service or from state of war or insurrection.*[231] Connecticut General was one of the first companies to abandon the use of either *engage* or *participate* as expressive of the action to be excepted, adopting instead in 1922 the clause *contracted or sustained while in or on or operating or handling any vehicle or mechanical device for aerial navigation, or in falling therefrom or therewith.* Penn Mutual and Massachusetts Mutual early[232] chose *aeronautic or submarine casualty* while Travelers varied from this only in the use of *expedition* instead of *casualty.* Mutual Life of New York and Continental Assurance Company, however, apparently accepting the *Bew* decision as worthy authority, continued to use *participation in aeronautics* as expressive of the exclusion.

Pennsylvania; Prudential Insurance Company of America, Newark, New Jersey; The Travelers Insurance Company, Hartford, Connecticut.

225. Prudential Insurance Company of America used "engaged in aviation operations."

226. *Bew* v. *Travelers Ins. Co.*, note 32.

227. *Ibid.* at 860.

228. Equitable Life (1922): "engaging as a passenger or otherwise in submarine or aeronautic expeditions." (See *Day* v. *Equitable Life Assur. Soc. of U. S.*, note 79, for litigation involving this exception in connection with the death of an insured while flying as a casual passenger.)

229. Lincoln National (1924): "engaging as passenger, or otherwise, in an aerial flight or submarine descent."

230. Connecticut Mutual (1923): "if death resulted directly or indirectly from engaging as a passenger or otherwise in aeronautic or submarine operations."

231. Prudential Ins. Co. of Amer. (1924): "from having been engaged in aviation or submarine operations or in military or naval service or from a state of war of insurrection."

232. Penn Mutual (1922) and Mass. Mutual (1928).

The construction of the *engage* exception in 1927 as not covering a casual passenger, in the initial decision involving the word as expressive of the *action* excepted,[233] was in all likelihood the cause of the immediate abandonment of such clause by the Connecticut Mutual Insurance Company,[234] though the subsequent approval of *as passenger or otherwise* in the *Gits*[235] and *Head*[236] cases as assuring general efficacy to either a *participate* or *engage* clause, obviously caused this company to again adopt the clause in 1930 with the *as passenger or otherwise* addition.[237]

The *having been engaged in aviation or submarine operations or in military or naval service in time of war* 1927 exception of the Prudential Insurance Company was likewise drastically revised two years later as the likely result of the *Gits* decision[238] construing *operations* as restricting the coverage of the exception to the actual handling of the mechanics of the plane, and of the *Peters* case[239] construing the *in time of war* phrase in an identical exception to extend not only to the military or naval service, but also to the aviation or submarine operations part of the clause. In the light of these two interpretations combined with the judicial approval of the *as passenger or otherwise* addition,[240] the 1929 exception of this company emerged *having been engaged in aviation or aeronautics, as a passenger or otherwise.*

Travelers Insurance Company discontinued the use of *expeditions* in favor of *hazards* in 1929,[241] and even though such expression was construed in favor of the insurer in the *Gibbs* case[242] in 1931, the Equitable Life Assurance Society did likewise shortly thereafter. In company with Prudential Insurance Company and Connecticut Mutual Insurance Company, Equitable dropped *engage* as expressive of the *action* excepted from coverage, subsequent to

233. *Benefit Association Ry. Employees* v. *Hayden*, note 53.
234. Connecticut Mutual (1927): Changed to "while in or on, or operating or handling any vehicle or mechanical device for aerial navigation, or in falling therefrom or therewith."
235. *Gits* v. *N. Y. Life Ins. Co.*, note 66.
236. *Head* v. *N. Y. Life Ins. Co.*, note 34.
237. Connecticut Mutual (1930): "engaging as a passenger or otherwise in aeronautic or submarine operations."
238. *Gits* v. *N. Y. Life Ins. Co.*, note 66.
239. *Peters* v. *Prudential Life Ins. Co.*, note 55.
240. *Head* v. *N. Y. Life Ins. Co.*, note 34; *Gits* v. *N. Y. Life Ins. Co.*, note 66.
241. Travelers Insurance Co. (1929): "provided death does not result from any hazard of aviation except as hereinafter provided. It is further agreed that the additional indemnity hereby provided will be paid if the death shall result from injuries caused by any of the hazards of aviation while the insured is riding as a passenger in a licensed passenger aircraft piloted by an incorporated passenger carrier and while operated by a licensed pilot on a regular passenger route between definitely established airports, but shall not be payable if the death of the insured shall result from injuries sustained in any military or naval aircraft or in any form of aviation travel or hazard not herein specified, nor from death resulting from injuries sustained by the insured while acting as a pilot, navigator or mechanic of an aircraft."
242. *Gibbs* v. *Equitable Life Assur. Soc.*, note 72.

the construction of such word in the 1930 *Charette* case[243] as being ambiguous when applied to passenger death, and adopted the exception *riding as passenger or otherwise in an airplane or in any other type of aircraft.* Prudential Insurance Company adopted generally the same clause,[244] while Connecticut Mutual chose *aeronautic flight or submarine descent.*

The development of the aviation exclusion clause in the Connecticut General policies presents perhaps the most diligent attempts to word the exception in the light of judicial decisions, as successfully to cope with every situation arising in connection with aviation risks. Though abandoning the usual *engage* and *participate* exceptions shortly after the early *Bew* case[245] in favor of a very technical and specific exception,[246] such exception was even further changed in 1929 to *or loss from being in or on, or about, or operating or handling any vehicle or mechanical device for aerial navigation or in falling or being thrown therefrom or therewith.* The *about* addition was undoubtedly the result of the 1927 *Pittman* case[247] involving for the first time the death of a passenger from contact with the revolving propeller after completing the flight, while the *being thrown* addition suggests the 1927 *Wendorff* case[248] involving the death of an insured as the result of being thrown from a seaplane by the impact of high waves during a forced landing. Unaffected by the numerous *engage* and *participate* judicial interpretations, the exception at the present time is in effect unchanged from that of 1929, though worded in more concise phraseology.[249]

Alongside of the tendency to adopt stricter language in order to adhere to court decisions, is to be noticed a more liberal development resulting from the general recognition of the comparative safety of modern commercial airlines.[250] This liberalization is

243. *Charette* v. *Prudential Life Ins. Co.*, note 94.
244. Prudential Life Ins. Co. of Amer. (1931): "from operating or riding in, any kind of submarine or aircraft whether as a passenger or otherwise."
245. *Bew* v. *Travelers Ins. Co.*, note 32.
246. Connecticut General Life Ins. Co. (1922): "contracted or sustained while in or on or operating or handling any vehicle or mechanical device for aerial navigation, or in falling therefrom or therewith."
247. *Pittman* v. *Lamar Life Ins. Co.*, notes 104 and 105.
248. *Wendorff* v. *Missouri State Life Ins. Co.*, notes 104 and 111. The policy involved in this case contained the following aviation proviso: "The insurance hereunder shall not cover injuries fatal or nonfatal sustained by the insured while in or on any vehicle or mechanical device for aerial navigation or in falling therefrom or therewith or while operating or handling any such vehicle or device."
249. Connecticut General Life Ins. Co. (1935): "Being or having been in, on or about, operating or handling or falling with or from any vehicle or mechanical device for aerial navigation."
250. *J. E. Hoskins*, "Aviation and Life Insurance," note 217 at 569: "Over the last five years the passenger death rate in scheduled flying has been .000042 per trip, or 4.2 per 100,000 passengers carried. Expressed in another way, the odds are more than 20,000 to 1 against the traveler being killed on a trip by air transport and several thousand to 1 that the traveler will reach his destina-

clearly evidenced in the ever-increasing tendency on the part of insurers to cover, even in disability and accidental death provisions, the risks incident to flight in the planes operated by these lines. Equitable Life Assurance Society, Prudential Life Insurance Company and Mutual Life Insurance Company of New York policies, at the present time, are practically identical in excepting from the aeronautical exclusion of their accidental death benefit clause anyone riding *as a fare paying passenger in a licensed passenger aircraft provided by an incorporated passenger carrier and operated by a licensed pilot on a regular scheduled flight over a regularly established air-route between definitely established airports.*[251] Travelers Insurance Company's present accident death provision varies from the above only in the language employed in expressing the coverage granted.[252]

Connecticut Mutual Life Insurance Company grants the same liberalized coverage in its modern disability provisions,[253] while Massachusetts Mutual Life Insurance Company and Continental Assurance Company go even further and extend coverage in disability provisions not only in flight over definitely established passenger routes, but also to any *fare-paying passenger on a licensed aircraft operated by a licensed pilot.*[254]

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tion in as good condition as when he started (since non-fatal injuries are also comparatively few). Since the average trip in this period has been nearly three hours long, the death rate on the basis of hours has been .000016 or 1.6 per 100,000 passenger hours. To put it still another way, in a group of policy holders who each travel 100 hours a year by air transport under average conditions, the death claim cost to the life insurance company will be $1.60 a year from each $1000 of insurance. This is practically all extra cost caused by the aviation hazard because the normal chance that a business or professional man will meet accidental death in the course of 100 hours costs an insurance company only about $.01 for each $1000 insured. For a number of reasons too technical to discuss here, the actual cost to the company will somewhat exceed the theoretical $1.60."

251. Equitable Life Assurance Society of the U. S. (1935): "resulting from or caused directly or indirectly by riding in an airplane or in any other type of aircraft except as a fare-paying passenger in a licensed passenger aircraft provided by an incorporated passenger carrier and operated by a properly licensed pilot on a regular passenger route between definitely established airports."

Prudential Life Ins. Co. of America (1935): "while operating or riding in any kind of submarine or aircraft except as a fare-paying passenger in a licensed aircraft provided by an incorporated passenger carrier and operated by a licensed pilot on a regularly scheduled flight over a regularly established air-route between definitely established airports."

Mutual Life Ins. Co. of N. Y. (1935): "from operating or riding in any kind of aircraft, whether as a passenger or otherwise, except as a fare-paying passenger in a licensed passenger aircraft provided by an incorporated passenger carrier and operated by a licensed pilot on a regular passenger route between definitely established airports."

252. Travelers Ins. Co. (1935), note 241.

253. Connecticut Mutual Ins. Co. (1935 disability): "resulting directly or indirectly from service, travel or flight in any species of aircraft, except as a farepaying passenger in a licensed passenger aircraft piloted by a licensed passenger pilot on a regular passenger route between definitely established airports."

254. Massachusetts Mutual Life Ins. Co. (1935 disability): "participating as a passenger or otherwise in aviation or aeronautics, except as a fare-paying passenger in or on any type of licensed aircraft operated by a licensed pilot."

Continental Life Assurance Company (1935 disability): "while participating or in consequence of having participated in aviation or aeronautics, except as a fare-paying passenger on a licensed aircraft operated by a licensed pilot."

Aviation Riders:

General History—The generally supposed efficacy of the statutory incontestable clause in voiding, after the expiration of the particular time period therein provided, all risk exceptions not specifically listed within the terms of the clause itself,[255] combined with the statutory prohibitions against any provisions for settlement in a sum less than the face amount of the policy,[256] led insurers for many years to rely almost entirely on careful selection of risks in the issuance of policies. General acceptance of the belief that immediately on the expiration of such contestable period the *inclusio unius est exclusio alterius* doctrine[257] prevented further exception from the policy coverage, is apparent in the early aeronautical riders.[258] Wide variance, however, ranging from return of premiums by the insurer to forfeiture of premiums by the insured, is to be found in the provisions as to the settlement under the policy in case of the death of the insured in the manner specified in the aeronautics exclusion.[259] This discrepancy in the amount returnable under these riders can apparently be attributed only to variances in company actuarial policies, when such discrepancy is considered in the light of the recognized rule that in the absence of stipulation to the contrary, where the risk has once attached, the whole premium is deemed to be earned and no portion thereof is returnable, even though the risk may terminate before the expiration of the term contracted.[260] Where, however, such termination

255. *See supra* pages 561 to 566, inclusive.
256. See note 203.
257. Note 179.
258. Representative of such riders are those issued in 1919 by Travelers Insurance Co. and Connecticut General Life Ins. Co.:
Travelers: "In consideration of the issuance of this contract, it is expressly agreed that if the death or permanent total disability of the insured shall result within one year from the effective date of the contract from injuries sustained while the insured is acting as a pilot or passenger in an aircraft, *the obligation of the company shall be fully discharged by the return without interest of the premiums theretofore paid on the contract.*" (Italics are the author's.)
Connecticut General: "If at any time within two years from the date of issue of this policy, the death of the insured shall be caused by, or result directly or indirectly, wholly or in part, from his being in a submersible boat of any description in any capacity whatsoever while submersed, or from engaging in or undertaking aero flights, or riding in any kind of airship, balloon or flying machine, it is understood that said policy shall be null and void, and *all premiums paid thereon shall be forfeited to the company.* (Italics are the author's.)
259. *Ibid.* See italicized sections.
260. *Lowell et al.* v. *St. Louis Mutual Life Ins. Co., et al.*, 111 U. S. 264, 4 S. Ct. 390, 28 L. Ed. 423 (1884); *Joshua Handy Machine Works* v. *American Steam Boiler Ins. Co.*, 86 Cal. 248, 24 Pac. 1018, 21 Am. St. Rep. 33 (1890); *Continental Life Insurance Co.* v. *Houser*, 111 Ind. 266, 12 N. E. 479 (1887); *Crouch* v. *Southern Surety Co.*, 131 Tenn. 260, 174 S. W. 1116, L. R. A. 1915D, 966, Ann. Cas. 1916C, 112 (1915). See also *New York Life Ins. Co.* v. *Statham et al.*, 93 U. S. 24, 23 L. Ed. 789 (1876); *Metropolitan Life Ins. Co.* v. *McCormick*, 19 Ind. 49, 49 N. E. 44, 65 Am. St. Rep. 392 (1898); *Mutual Reserve Fund Life Association* v. *Ferrenback*, 144 F. 342 at 346 (1906); *Mailhoit* v. *Metropolitan Life Ins. Co.*, 87 Me. 374, 32 A. 989, 47 Am. St. Rep. 336 (1895); *Ebert* v. *Mutual Reserve Fund Life Association*, 81 Minn. 116, 83 N. W. 506, affirmed on reargument, 84 N. W. 457 (1900); *Provident Savings Life Assurance Society*

is at the instance of the insurer, or such return is required by statute, a different rule is obviously applicable.[261]

Consistent with the constant variations in the language employed in expressing the aeronautical exceptions from accidental death and disability provisions, were the variations in the aviation riders subsequent to the numerous judicial interpretations of the more commonly used exceptions. The general practice of limiting the scope of such riders to the time period of the incontestable clause continued, however, until the 1930 decision of the New York court in the now famous *Conway* v. *Metropolitan Life Insurance Company* case[262] distinguishing between an exclusion from coverage and a condition, and holding an aviation rider, unlimited in its scope as to time, to be valid and not inconsistent with the statutory two year incontestable clause.[263] Almost verbatim adoption of the rider approved in the *Conway* case immediately followed, though numerous companies varied it to the extent of inserting provisions granting coverage to fare paying passengers on regular air lines.[264]

Present Status—A comprehensive survey of aviation exclusions used at the present time by one hundred and seventy-one companies throughout the United States and Canada, reveals that 121 of this number exclude aviation risks either by rider, policy provisions, or stamp, while 8 refuse to accept the applicant subjected to aviation hazards under any condition, and 42 are very careful as to the acceptance of such risk, but give full coverage in the policy issued if the applicant is granted insurance.[265]

Riders appear to be by far the most commonly used form of aviation exclusion,[266] as the tabulations reveal that 93 of the 121 com-

of N. Y., et al. v. *Ellinger*, 164 S. W. 1027 (Tex. Civ. App. 1913). *Vance*, Insurance, note 10, at 318.

261. *Cal. Civil Code*, §2617, as quoted in *Vance*, Insurance, note 10, at 320 is illustrative of such statutes: "Where the insurance is made for a definite period of time and the insured surrenders his policy, he is entitled to a return of such proportion of the premium as corresponds with the unexpired time after deducting from the whole premium any claim for loss or damage under the policy which had previously accrued."

262. Note 190.

263. Note 191.

264. See Appendix "B".

265. See Appendix "A".

266. *J. E. Hoskins*, "Aviation and Life Insurance," *op. cit. supra* note 217, at 569: "Companies which have only one scale of premiums, therefore, use this *exclusion rider* in order to give partial coverage to applicants whom their agents meet in the ordinary course of business and who turn out to be interested in aviation. Other companies use it in cases where the hazard is too great to be covered by any reasonable extra premium or where there are unexpected difficulties in assessing the proper rate or where the applicant thinks the rate quoted is excessive and requests a restricted policy at standard rate. Some companies feel that the applicant should have the right to choose between *full coverage* and *restricted coverage*, and *will issue the exclusion rider freely* on request. Other companies take the attitude that the interests of the beneficiary should be protected against the bad judgment of the policy holder. These latter companies confine the use of the rider to applicants who have discontinued flying but where the permanence of the change is in doubt. Under

panies employing either riders, policy provisions or stamps, use this mode of exclusion, while 24 use policy provisions, 3 use stamps, and 1 employs both riders and policy provisions. As the sum to be returned to the beneficiary in case of the death of the insured within the terms of these aviation exclusions, 87 companies provide for the return of the reserve, 26 for the premiums paid,[267] 3 use both, varying according to the individual risk, and 5 of the policy forms examined failed to specifically state the sum to be returned.

Though variations are to be found in the exclusions of some companies,[268] three general types of exclusions are issued by insurance companies at the present time:

(1) Death as a result of service, travel or flight in any species of aircraft, except as a fare-paying passenger, is a risk not assumed under this policy during the two years following the date of issue; but if within that period the insured shall die as a result, directly or indirectly, of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy.

(2) Death as a result, directly or indirectly, of service, travel or flight in any species of aircraft, except as a fare-paying passenger on a licensed aircraft piloted by a licensed passenger pilot on a scheduled passenger air service regularly offered between specified airports, is a risk not assumed under the policy; but, if the insured shall die as a result, directly or indirectly, of such travel or flight, the company will pay to the beneficiary the reserve on this policy, less any indebtedness thereon.

(3) Death as a result, directly or indirectly, of service, travel or flight in or on any species of aircraft is a risk not assumed under this policy; but, if the insured shall die as a result, directly or indirectly of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy.

As illustrated in the more detailed tabulation of the investigation, contained in Appendix "A" to this discussion,[269] provision (2) granting coverage to air line passengers, is used exclusively by 49 companies; provision (3), excluding coverage of every kind, is used exclusively by 32, while 36 more employ both, varying according to the particular circumstances of the risk involved. Only 3 companies still use (1) exclusively while a single company employs both (1) and (3).

V. 1936 Specific Aviation Risk Coverage.

The close of the year 1935 saw conclusive indications of widespread recognition on the part of insurers of the rapidly increasing

these conditions, if the policy holder carries out his intention, there is in effect no exclusion." (Italics are the author's.)

267. Companies vary as to whether or not these premiums are *with* or *without* interest. However, the great majority of companies at the present time *do not* include interest.

268. See Appendix "B".

269. See p. 584.

degree of aeronautical safety, to the extent of marked liberalization of aviation risk coverage.[270] Typical of such liberalization[271] is the present aviation coverage offered by Aero Insurance Underwriters,[272] Equitable Life Assurance Society, and Prudential Insurance Company of America.

Characterizing the coverage as "a tribute which we are glad to pay to the safety of American Aviation" the Aero Insurance Underwriters offer a business policy for $50,000 for a $50 per year premium; $10,000 of which would follow each individual whenever flying the airlines and also when at airports and places of forced landings.[273] Granting full coverage up to a maximum of $100,000 to applicants with 21 to 50 takeoffs or 41 to 100 hours of flying a year, and proportionately scaling the rates for coverage of applicants with takeoffs and hours of flying of more or less degree,[274] the Prudential Insurance Company, in formally announcing such liberalized coverage,[275] attributed the step to "continued improvement in the safety record of air transportation." Similar announcements by Equitable Life Assurance Society of United States in November, 1935, were to the effect that the Society would thereafter accept with greater freedom applicants flying as fare-paying passengers over established air-routes, attributing such policy liberalization to

270. Figures of the Bureau of Air Commerce of the United States Department of Commerce show that for the two years ending June 30, 1935, only 27 passenger fatalities occurred during that period out of over a million passenger flights. The statistics of this same Bureau, released in 1936, show that from July to December, 1935, commercial airlines flew 1,054,882 miles per accident, and 17,973,688 passenger miles per passenger fatality.

271. *J. E. Hoskins,* "Aviation and Life Insurance," op. cit. note 217 at 569: "A few companies are absorbing this (aviation) loss ($1.60 per $1,000) and offering standard insurance to men who use the airways in the ordinary course of business, regardless of the amount of flying. This must be regarded as a voluntary contribution toward the advancement of business progress, and a company which does not choose to make such a contribution, and instead believes that each class of policyholder should pay its own cost, cannot fairly be criticized."

272. Aero Insurance Underwriters (not a life company) issue policies on aviation hazards for the Eagle Indemnity Co., Globe Indemnity Company, Phoenix Indemnity Company, Great American Indemnity Company, Royal Indemnity Company, and London Guarantee and Accident Company.

273. The policy covers all named employees and additional employees are added automatically from the time their names are mailed or telegraphed to the Underwriters. (Coverage announced Dec. 19, 1935.)

274. The formal Prudential Life Ins. Co. statement follows (in part): "Applicants with not more than 20 take-offs nor more than 40 hours of flying a year will be accepted at regular rates with a maximum limit of $200,000 of old and new insurance combined. Applicants with 21 to 50 take-offs or 41 to 100 hours of flying a year will also be accepted at regular rates, but the Accidental Benefit, if applied for, will be rated. The maximum limit will be $100,000 of old and new insurance combined.

"Applicants with more than 50 take-offs or more than 100 hours of flying a year, may in exceptional cases, be accepted at regular rates, but as a rule, will be rated. The Accidental Death Benefit, if applied for, will be rated or refused depending on the merits of the case. The maximum limit will be $50,000 for old and new insurance combined.

"It should be emphasized that the Accidental Death Benefit, when granted, covers the risk of flying as a fare-paying passenger on a scheduled flight over a regularly established line, but no other flying. An executive or employee of an air transport company flying on a pass would not be considered as a fare-paying passenger."

275. James F. Little, Vice-president and Actuary of the Prudential Ins. Co. of America. *Eastern Underwriter,* Dec. 6, 1935, p. 40.

"studies of recent developments in commercial aviation."[276] Standard rates are applicable to a greatly increased number of cases, with corresponding adjustments in extra premiums due to large amounts of flying.[277]

General acceptance of applicants whose use of airlines does not exceed 15 or 20 trips a year, provided such trips are made on regular airways, on scheduled trips, with licensed pilots, and for business purposes was also recently announced by Massachusetts Mutual Life,[278] while in 1935 Connecticut General Life Insurance Company, in addition to the issuance of a Private Flier's Accident Policy,[279] voluntarily extended coverage while flying as a fare-paying passenger on regular commercial lines, to fifty-six holders of accident and disability policies of that company.[280]

VI. Predicted Efficacy of 1936 Exclusions.

General Importance:

Though this revolutionary liberalization indicates even more widespread acceptance of aviation risks in the future and consequent abandonment of such stringent exclusion clauses, nevertheless

276. Vice-president W. W. Klingman in letter addressed to the Managerial Staff of the Society, Nov. 21, 1935. *Eastern Underwriter, ibid.*

277. The formal announcement stated (in part): "Where the aviation hazard is ratable on the basis of liberalized rules for passengers or the current rules for other types of aviation risks, the Equitable Society will continue as heretofore to assess an extra premium where such can be satisfactorily determined and will not offer the applicant the choice of a policy without the aviation coverage in lieu of the extra premium. This is in keeping with current opinion against the issuance of insurance which does not insure. In appropriate cases, however, the Society is now prepared to issue a policy with a permanent exclusion clause against death resulting from an aviation accident. The new clause is intended only to permit the insuring of aviation risks which the Society has formerly been obliged to decline because of the impossibility of determining a satisfactory extra charge or because of the hazard was too great to insure at the higher rating. Test pilots and student pilots are among the risks in this group. The Society announces that because of special considerations, it is not in a position to use the aviation exclusion clause in the following sixteen states: Idaho, Illinois, Indiana, Kansas, Louisiana, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee and Wyoming." (See note 215.)

278. This is recognized as a general rule by the company, and where investigation indicates that there is a use of private airplanes, or trips which do not come within the rule, or where the terrain over which most of the flying is done is extra hazardous, or where the type of business the applicant is engaged in would demand constant and rapid travel, the insurance is either declined or an exclusion is attached, depending on what the company feels is the extra hazard involved, and whether or not an exclusion rider would be valid in the state where the contract is delivered.

279. Appendix "D," of original thesis not included in printing.

280. The extended coverage read: "Under the accident and disability forms listed herewith, and subject otherwise to the conditions and provisions in the policy, the Company will pay indemnity to the extent of the minimum amount (single indemnity) provided in the policy, for any loss specified therein which shall result from injuries sustained while the insured is fare paying passenger in a passenger aircraft owned and provided by an incorporated passenger carrier, and operated by a licensed pilot on a scheduled trip over an established passenger route of such carrier, and between definitely established airports, and provided such aircraft is not being used for a flight in excess of three hundred continuous nautical miles over water. This extension shall not apply to any other form of aviation travel, hazard or exposure. Nothing herein contained shall render the company liable for the double, triple, or quadruple indemnity, if any, specified in the policy."

the constant necessity of expressing with exactness the specific extent of risk excluded and coverage granted[281] suffices to evidence the present necessity of phrasing such clause so as to clearly convey the unequivocal intent of the insurer to the insured, the beneficiary, and the court.

Ten Representative Companies:

Connecticut General Life Insurance Company—The influence of judicial authority is evident in the phraseology of currently used exception clauses; though, as illustrated in those employed by the ten representative companies involved in this discussion,[282] the efficacy of such exceptions in extending to all aviation risks, is, to say the least, very doubtful. The *being or having been in, on or about, operating or handling or falling with or from any vehicle or mechanical device for aerial navigation* clause of Connecticut General Life Insurance Company[283] is by far the most technical and all-inclusive exception of the group; though Massachusetts Mutual Life Insurance Company, Penn Mutual Life Insurance Company, and Travelers Insurance Company, the former two employing *aviation casualty,*[284] and the latter *aviation hazard,* attempt the same degree of coverage by means of all-inclusive words rather than technical expression.

Penn Mutual Life Insurance Company, Massachusetts Mutual Life Insurance Company, Travelers Insurance Company—A complete absence of litigation involving either *aviation hazard* or *aeronautic casualty* makes any conclusion as to the general efficacy of such language, in the light of judicial interpretation of analogous aeronautical exclusions, mere conjecture, though the present existence of thousands of policies[285] and the continued issuance of

281. *Joseph B. McLean,* Life Insurance (3rd Ed. 1932) p. 329: "While death from accident may seem a well-defined contingency, experience has shown the companies that, if they wish to avoid liability under the clause for many claims never intended to be covered and not believed to be covered, they must be very explicit in defining exactly what is meant by accidental death and in stating what, if any, restriction or limitations are imposed."

282. Note 224.

283. Adopted 1935. (Changed from 1932 exceptions: "while in or on any vehicle or mechanical device for aerial navigation, or in falling or otherwise descending therefrom or therewith, or while operating, or handling any such vehicle or device.")

284. Penn Mutual Life Ins. Co.: "The double indemnity benefit shall not be payable if death of the insured resulted directly or indirectly from . . . aeronautic or submarine casualty."
Massachusetts Mutual Life Ins. Co.: "The benefits under this provision shall not be payable if the death of the insured resulted directly or indirectly . . . from aeronautic or submarine casualty."

285. See petition for certiorari to United States Supreme Court, *Gregory v. Mutual Life Ins. Co. of New York.* Cert. denied, 56 S. Ct. 157, 80 L. Ed. 126 (1935).

policies involving the specific exceptions by this trio of insurers[286] warrant their consideration.

Defined as a "risk, danger or peril"[287] and judicially construed as "meaning and covering a risk or peril assumed or involved,"[288] it would seem that *hazard* might truly be an all-inclusive choice, though the strict literal interpretations placed on analogous exceptions,[289] suggest a note of uncertainty as to this use of the word. *Casualty* likewise has been defined as "accident; that which comes by chance or without design, or without being foreseen,"[290] and legally construed as "inevitable accident, unforeseen circumstances *not to be guarded against by human agency* and in which man takes no part,"[291] suggesting that the classifications of death in an aeronautical crash as a casualty might possibly be averted by proof of negligence or, in rare cases, intent on the part of the pilot. However, the refutation of such negligence or intent contention, and the establishment of the efficacy of such exception in all deaths resulting from actual flight, will in all likelihood result from the general recognition of such word as being synonymous with *accident*, and thus bringing the clause within the ambit of consistent judicial construction of *accident*, as "not to be taken too literally, because a person may suffer injury accidental to him, under circumstances which include the design of another."[292] Death of the insured as the result of being struck by spinning propellers, or other moving parts of the machine, either before or after the flight, due to his own inadvertence, is clearly, under the import of the above authorities, covered by the exception.

Equitable Life Assurance Society of the United States, Mutual Life of New York, Connecticut Mutual Life Insurance Company, and Prudential Life Insurance Company of America—The *resulting from or caused directly or indirectly by riding in an airplane or in other type of aircraft* exception of Equitable Life Assurance Society[293] would, in all probability, protect the company in the great majority of aviation fatalities, though under the pre-

286. Penn Mutual Life Ins. Co. 1922-1936: Massachusetts Mutual Life Ins. Co., 1928-1936; Travelers Insurance Co., 1929-1936.
287. Webster's New International Dictionary.
288. *State ex rel. Amerland* v. *Hagan, Commissioner of Agriculture and Labor, et al.*, 44 N. D. 306, 175 N. W. 372 at 277 (1919): "In ordinary acceptance or comprehension, a 'hazard,' whether applied to contract relation, personal relation or to golf or gambling, means and covers a risk or peril, assumed or involved."
289. *Supra* pages 309 to 311, inclusive.
290. Webster's Imperial Dictionary.
291. Bouvier's Law Dictionary; Words and Phrases, 3rd Series.
292. *Spreacher* v. *Ensminger*, 167 Iowa 118, 149 N. W. 97 at 99 (1914); *Klopfenstein* v. *Union Traction Co.*, 112 Kan. 770, 212 P. 1097 at 1098 (1923); *Gilliland et al.* v. *Ash Grove and Portland Cement Co.*, 104 Kan. 773, 180 P. 793 at 794 (1919).
293. Note 251.

cedent of strict construction of aeronautical clauses,[294] the efficacy of the clause in all likelihood would not be extended to include death of an insured as the result of aviation hazards while not in actual flight. Particularly would this be true if the fatal accident occurred prior to the actual take-off.[295] For the same reasons, the *operating or riding in any kind of aircraft* exclusion of Mutual Life of New York,[296] the *aeronautic flight* of Connecticut Mutual Life Insurance Company,[297] and the *operating or riding in any kind of submarine or aircraft* exclusion of Prudential Life Insurance Company of America,[298] would be effective as to all aviation risks with the likely exception of those while insured is not actually in flight—either immediately prior to the takeoff or subsequent to landing.

Lincoln National Life Insurance Company, and Continental Life Assurance Company—The inclusion of the *as passenger or otherwise* phrase in the *participate* exclusion of Continental Assurance Company,[299] and the *engage* exception of Lincoln National Life Insurance Company[300] apparently assures the judicial efficacy of such exceptions insofar as the point has been directly determined by the courts.[301] However, the unequivocal rejection of *as passenger or otherwise* as making an *aeronautic expeditions* exception all-inclusive,[302] combined with judicial renunciation of *participate*[303] and *engage*[304] as including casual passengers, would, to say the least, seem to demand the classification of these exclusions as being unsatisfactory.

VII. Conclusion.

Though the absolute unpredictability of judicial interpretation of any aviation exception clause is manifestly concluded by widely divergent precedent, the following is offered as affording, insofar as

294. Note 21.
295. See *Tierney* v. *Occidental Life Ins. Co.*, notes 104 and 106; *Blonski* v. *Banker's Life Ins. Co.*, notes 104 and 107; *Murphy* v. *Union Indemnity Co.*, note 108.
296. Note 251.
297. Conn. Mutual Life Ins. Co. (1936): "The company shall not be liable for any payment hereunder if such death shall directly or indirectly result from an aeronautic flight or submarine descent."
298. Note 251.
299. Continental Assurance Co. (1936): "participating in aeronautics in any form as a passenger or otherwise."
300. Lincoln National Life Ins. Co. (1936): "engaging as a passenger, or otherwise, in an aerial flight or submarine descent."
301. *Head* v. *New York Life Ins. Co.*, note 34; *Goldsmith* v. *New York Life Ins. Co.*, note 72; *Mayer* v. *New York Life Ins. Co.*, note 72.
302. *Provident Trust Company of Philadelphia* v. *Equitable Life Assur. Soc. of U. S.*, note 79; *Day* v. *Equitable Life Assur. Soc. of U. S.*, note 79.
303. *Gregory* v. *Mutual Life Ins. Co. of N. Y.*, note 35; *Missouri State Life Ins. Co.* v. *Martin*, note 66.
304. *Benefit Ass'n. of Ry. Employees* v. *Hayden*, note 53; *Masonic Accident Ins. Co.* v. *Jackson*, notes 55 and 57; *Peters* v. *Prudential Life Ins. Co. of America*, notes 55 and 56; *Flanders* v. *Benefit Ass'n. of Ry. Employees*, note 21.

possible to determine under the holdings and dictum of litigated decisions, a clear and concise aeronautical exclusion:

Death resulting directly or indirectly from service or travel or while in, on, or near, as a passenger or otherwise, any vehicle or mechanical device for aerial flight or ascension.[305]

Of obvious major importance remains the status of the insurer's future liability under any of the millions of policies containing *engage* and *participate* exception clauses issued during the past two decades.[306] Though the apparent inconsistency marking the great majority of past decisions involving such clauses,[307] in truly creating a distinction in form which did not exist in substance, and freely construing such exceptions without apparent regard to either precedent or obvious intent of the contracting parties,[308] demands the classification of any attempt to predict the future judicial interpretation of such exception as mere conjecture; it is nevertheless submitted that in the absence of an *as passenger or otherwise* phrase, insurers, regardless of the *activity* expression used, will be held liable in all cases involving *engage* and *participate* exceptions and arising from the death of the insured as the result of injuries sustained while riding as a casual passenger in either a private or commercial plane. Available authority demonstrating the absolute ineffectiveness of an *as passenger or otherwise* addition when the court so chooses to ignore it,[309] and interpreting any construction of passenger death in connection with *engage* as conclusive of ambiguity,[310] however, precludes the assertion of such statement, impliedly recognizing the addition of such *as passenger or otherwise* as making any exception, other than one involving aeronautic expedition, all-inclusive, with a degree of absolute finality.

305. Reasons for presenting this exception follow: "(A) The present recognized efficacy of *as passenger or otherwise*, in connection with expressions other than "aeronautic expeditions," is utilized; yet the clause will still be effective in case of reversal of courts' attitude toward such phrase.
(B) *Service or travel* includes, pilot, crew, navigator, steward, passenger, etc.
(C) *Engage* and *participate* eliminated entirely.
(D) *Mechanical device* takes in airships, balloons, gliders, planes,—either private or transport.
(E) *In, on or near* includes crash while in flight, as well as accidents before and after landings (from propellers, etc.).
(F) *Directly or indirectly* emphasizes the intent of insurer to exclude risks of insured while walking to and from plane before and after flight.
(G) *Service or travel*, combined with the *in, on or near* phrase is inclusive clearly of forced landings.
(H) If insurer desires to permit coverage of a "fare paying passenger on a regular incorporated air line" or on a "licensed aircraft" such can be easily added to the above exception, without in any way impairing its efficacy in excluding other aeronautical risks."

306. Note 285.

307. Note 21.

308. See *Bew* v. *Travelers Ins. Co.*, note 32 at 360: "I have no doubt that the insurance company *intended* to provide against liability in case of injuries to persons who navigate the air, a means of transportation still regarded as extremely hazardous. The question is whether it has used appropriate language to so provide." (Italics are the author's.)

309. *Day* v. *Equitable Life Assur. Soc. of U. S.*, note 79.

310. *Charette* v. *Prudential Life Ins. Co. of Amer.*, notes 91 and 94.

Appendix "A"

Policies and/or rider forms of the following American and Canadian life insurance companies were examined as to the provisions relating to the coverage of aeronautic risks:

Acacia Mutual Life
Aetna Life
American Bankers Life
American Central Life
American Life & Accident (Ky.)
American Life (Ala.)
American National Life
American Reserve Life
American Savings Life (Ind.)
American Savings Life (Mo.)
American Union Life
Amicable Life
Atlanta Life
Atlantic Life
Atlas Life
Baltimore Life
Bankers Life Co.
Bankers National Life
Bankers Life of Neb.
Beneficial Life
Berkshire Life
Buffalo Mutual Life
Business Men's Assurance Co.
California-Western States Life
Canada Life Assurance
Capitol Life
Cedar Rapids Life
Central Life Assurance
Central Life of Ill.
Central Life (Kan.)
Central States Life
Church Life
Colorado Life
Columbian Mutual Life
Columbian National Life
Columbus Mutual Life
Commonwealth Life
Confederation Life Assur.
Connecticut General Life
Connecticut Mutual Life
Conservative Life (Ind.)
Conservative Life (W. Va.)
Continental American Life
Continental Assurance
Country Life
Crown Life
Durham Life
Equitable Life (Ia.)
Equitable Life (D. C.)
Equitable Life Assurance (N. Y.)
Eureka-Maryland Assurance
Farmers and Bankers Life
Farmers and Traders Life
Federal Life
Fidelity Mutual Life
Fidelity Union Life
Franklin Life
General American Life
George Washington Life
Girard Life
Globe Life
Great American Life (Kan.)
Great American Life (Tex.)
Great National Life
Great Northern Life
Great Southern Life
Great Western Life
Great-West Life (Can.)
Guarantee Mutual Life
Guaranty Life
Guardian Life
Gulf Life (Fla.)
Gulf States Life
Hercules Life
Home Life—N. Y.
Home Life (Pa.)
Home State Life
Imperial Life
Indianapolis Life
Interstate Life & Accident
Jefferson Standard Life
John Hancock Mutual Life
Kansas City Life
Lafayette Life
Lamar Life
Liberty Life (Kan.)
Liberty National Life
Life & Casualty
Life of Virginia
Maryland Life
Massachusetts Protective Life
Massachusetts Mutual Life
Metropolitan Life
Michigan Life
Mid-Continent Life
Midland Life
Midland Mutual Life
Midwest Life
Minnesota Mutual Life
Modern Life
Monarch Life
Montana Life
Monumental Life
Mutual Benefit Life
Mutual Life (Can.)
Mutual Life (N. Y.)
Mutual Trust Life
National Life & Accident
National Life Assur. of Canada
National Life (Ia.)
National Life (Vt.)
National Reserve Life

New England Mutual Life
New World Life
New York Life
North American Life (Ill.)
North American Reassurance
Northwestern National Life
Northwestern Mutual Life
Occidental Life (Cal.)
Occidental Life (N. C.)
Ohio National Life
Ohio State Life
Old Line Life
Old Republic Credit Life
Oregon Mutual Life
Pacific Mutual Life
Pan-American Life
Penn Mutual Life
Philadelphia Life
Phoenix Mutual Life
Pilot Life
Postal Life
Protective Life
Provident Mutual
Provident Life & Accident
Prudential Insurance
Puritan Life
Pyramid Life (Ark.)
Pyramid Life (N. C.)
Reliance Life
Republic Life (Tex.)
Reserve Loan Life
Rockford Life
St. Louis Mutual Life
Scranton Life
Seaboard Life
Security Life & Trust
Security Mutual (Neb.)
Security Mutual (N. Y.)
Service Life
Shenandoah Life
Southland Life
Southwestern Life
State Farm Life
State Mutual Life
State Reserve Life
Sun Life (Can.)
Travelers Ins. Co.
Union Central Life
Union Cooperative
Union Labor Life
United Benefit Life
United Fidelity Life
United Mutual Life
United States Life
Volunteer Life
Washington National Life
West Coast Life
Western & Southern Life
Western Reserve Life (Tex.)
Wisconsin Life
Wisconsin National Life

As indicated in the text of this discussion, three general types of exclusions are issued by companies at the present time, though variations are to be found in the policies of some companies. The three general types of exclusions now in use follow:

(1) Death as a result of service, travel or flight, in any species of aircraft, except as a fare-paying passenger, is a risk not assumed under this policy during the two years following the date of issue; but if within that period the insured shall die as a result, directly or indirectly, of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy.

(2) Death as a result, directly or indirectly, of service, travel or flight in any species of aircraft, except as a fare-paying passenger on a licensed aircraft piloted by a licensed passenger pilot on a scheduled passenger air service regularly offered between specified airports, is a risk not assumed under this policy; but, if the insured shall die as a result, directly or indirectly, of such travel or flight, the company will pay to the beneficiary the reserve on this policy, less any indebtedness thereon.

(3) Death as a result, directly or indirectly, of service, travel, or flight in or on any species of aircraft is a risk not assumed under this policy; but, if the insured shall die as a result, directly or indirectly of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy.

Of the companies listed above, 49 use exclusively provision No. 2, granting coverage to airline passengers; 32 employ exclusively No. 3, excluding coverage of every kind; while 36 more employ both, varying according to the particular circumstance of the risk involved. No. 1, varying the coverage granted during the contestable and incontestable periods of the

policy, is used exclusively by only three companies, while both No. 1 and No. 3 are employed by a single company.

As was indicated in the text of this discussion, 42 of these companies are very careful as to the acceptance of an aeronautic hazard, but give full coverage in the policy issued if the applicant is granted insurance; 8 refuse to accept the applicant subject to aviation hazards under any condition; while 121 companies use riders, policy provisions, or stamps, in limiting or excluding aviation risks. Of this number, 93 employ riders, 24 use policy provisions, 3 employ stamps, and 1 employs both riders and policy provisions.

As the sum to be returned to the beneficiary in case of the death of the insured within the terms of these aviation exclusions, 87 companies provide for the return of the reserve, 26 for the premium paid, 3 use both, varying according to the individual risk, and 5 of the policy forms examined fail to specifically state the sum to be returned.

Appendix "B"

1936 Aviation Riders Used by the Metropolitan Life Insurance Company, New York, N. Y.

These riders are here listed as being illustrative of the present tendencies on the part of life insurance companies toward aeronautic risks. It is to be pointed out, however, that from a numerical standpoint the use of such a policy coverage restriction is negligible, the records of the Metropolitan Life Insurance Company, for example, showing that only about one in every thousand policies contains a rider restricting the life coverage.

A. "An extra .... premium of $..... for the hazards of aviation except such as are excluded by any supplemental agreement or supplemental contract which may be attached to this Policy is included in the premium charge for this Policy."

B. "Death as a result of service, travel or flight in any species of aircraft, except as a fare-paying passenger, is a risk not assumed under the policy during the two years following the date of issue; but if within that period the insured shall die as a result, directly or indirectly, of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy."

C. "Death as a result direcly or indirectly, of travel or flight in any species of aircraft, except as a fare-paying passenger on a licensed aircraft piloted by a licensed passenger pilot on a scheduled passenger air service regularly offered between specified airports, is a risk not assumed under this policy, but, if the insured shall die as a result, directly or indirectly, of such travel or flight, the company will pay to the beneficiary the reserve on this policy less any indebtedness thereon."

D. "Death as a result, directly or indirectly of service, travel or flight in or on any species of aircraft is a risk not assumed under this policy; but, if the insured shall die as a result, directly or indirectly, of such service, travel or flight, the company will pay to the beneficiary the reserve on this policy."

E. (Accidental Death Benefit) ". . . that death shall not have occurred as a result, directly or indirectly, of travel or flight in any species of aircraft, except as a fare-paying passenger on a licensed aircraft piloted by a licensed passenger pilot on a scheduled air service regularly offered between specified airports; . . ."

F. (Total and Permanent Disability) "Waiver or premium shall not be made for total and permanent disability which resulted . . . from bodily injury sustained by the insured while participating in aviation or aeronautics except as a fare-paying passenger on a licensed aircraft operated by a licensed pilot or . . ."

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Passenger Not "Engaged in Aviation." *F. E. G.* (*Masonic Acc. Ins. Co.* v. *Jackson*) 2 So. Cal. Law Rev. 498 (1929).

Statutes Affecting Representations in Insurance Contracts (Legislation). 32 Col. Law Rev. 522 (1932).

What Constitutes Engaging or Participating in Aviation or Aeronautics. (*Blonski* v. *Bankers' Life Ins. Co.*) 17 Minn. Law Rev. 334 (1933).

STATE REGULATION

REPORT OF THE STANDING COMMITTEE ON AERONAUTICAL LAW OF THE AMERICAN BAR ASSOCIATION FOR 1936*

I. Recommendations.

Your committee has no specific recommendations to make to the Association in this report.

II. Meetings of the Committee.

Your committee held a meeting at Washington, D. C., on May 7, 1936.

In addition, the members of the committee were requested to meet jointly with the Committee on Uniform Aeronautical Code of the Conference of Commissioners on Uniform State Laws at Chicago on January 13, 1936, and at Philadelphia on January 24, 1936, and April 9, 1936.

The Philadelphia meetings were also attended by the Advisors appointed by the American Law Institute to cooperate in preparing a uniform act dealing with the substantive law of flight. At the Chicago and Philadelphia meetings, a majority of the members of the Committee on Uniform Aeronautical Code of the Conference of Commissioners on Uniform State Laws were present.

III. Proposed State Uniform Aeronautical Code.

As reported last year, this committee is cooperating with the Committee on Uniform Aeronautical Code of the Conference of Commissioners on Uniform State Laws in the preparation of a Uniform Aeronautical Code to be recommended to the several states for adoption.

Parts I and II of the proposed Code were adopted by the Conference of Commissioners on Uniform State Laws and approved by the American Bar Association last year. These parts are known as the Uniform Airports Act and the Uniform Aeronautical Regulatory Act.

Your committee has been working diligently throughout this year, in cooperation with the Conference Committee on Uniform Aeronautical Code and the American Law Institute, in the preparation of a Uniform Act dealing with the substantive law of flight.

At this writing, it has not been determined finally by the Conference Committee whether the first draft of this proposed act will be presented to this year's session of the Conference of Commissioners on Uniform State Laws.

As the draft now stands, it proposes a scheme of limited liability for personal injury or death sustained in air accidents regardless of negligence; and it requires all aircraft to carry insurance against this liability. It also

* Presented to the American Bar Association at its Fifty-Ninth Annual Meeting, Boston, Mass., Aug. 24-28, 1936.

repeats the provision of the existing Uniform Acts that there shall be unlimited liability regardless of negligence for damage to property or injury to persons on the ground; and it requires limited insurance against this liability. With respect to liability of the owner or operator of one airplane for damage to another, the draft proposes a rule of liability proportionate to fault, and requires limited insurance against this liability.

The cooperating committees which have been working on this draft intend to hold a series of hearings, at which those interested in the subject may express their views with regard to these provisions; and the committees will continue their work after these hearings have been held.

IV. Progress of the Law of Aeronautics in the United States.

Federal Legislation.

In conformity with the duty of this committee to "consider and report on all questions pertaining to the law of aeronautics," we beg to report as follows:

By Act approved August 14, 1935, Congress again amended the Federal Air Mail Act. Some of the amendments are quite significant. They make the following changes in the law:

1. The length of permitted air-mail contracts is increased from one year to three years.

2. Extensions of routes may be made, not to exceed 250 miles, instead of 100 miles.

3. Only three transcontinental routes, instead of four, are included as primary routes. It is specified that the southern transcontinental route by Boston, New York, Washington, D. C., to Los Angeles shall be a primary route.

4. The coastal lines on the east and west coasts are not required to be included among primary routes.

5. The aggregate of permitted routes is increased from 29,000 to 32,000, and the annual aggregate air-miles from 40 million to 45 million.

6. The Interstate Commerce Commission is directed to review at least once a year, after examination of books, etc., the rates of compensation in order to determine that no unreasonable profit is being made.

7. In determining this question, the Commission is instructed to disregard losses resulting from non-mail schedules.

8. The payment of any officer or employee of more than $17,500.00 per year by an air-mail contractor is prohibited.

9. Report of free transportation issued is required.

10. The rate of compensation and working conditions of all employees of air contractors are made subject to the decisions of the National Labor Board.

11. Air contractors are prohibited, after June 30, 1935, from operating off the line of the air mail route, any schedules other than those schedules regularly maintained prior to July 1, 1935.

12. The Interstate Commerce Commission is given authority to suspend the operation of an air-mail contractor off the air mail route, if such operation adversely affects another air-mail contractor or tends to increase the cost of air-mail transportation.

By Senate Resolution No. 146 (74th Congress, first session), the Senate Committee on Commerce was authorized and directed to investigate the wreck of the airplane owned by Transcontinental & Western Air Lines, Inc., which occurred May 6, 1935, near Macon, Missouri. This was the wreck in which Senator Cutting was killed. The committee was authorized to investigate, not only this wreck but any other accident or wreck in which lives are lost, interstate air commerce generally, provisions and safeguards provided by those engaged in interstate commerce, including the departments of the United States government, and the efficiency of supervision of government inspection agencies. They were also directed to determine and recommend such legislation as ought to be adopted in the interest of safety.

This sub-committee, headed by Senator Copeland, has completed its hearings; but the report was not yet available at the time this report of your committee goes to press.

State Legislation.

Heretofore, the committee have not called attention to the development of aeronautical law in the several states.

Purely as a matter of interest to practicing attorneys, and as an evidence of the continuous and rapid growth of aeronautical law, we are citing hereafter some of the more significant recent state enactments. We also call attention to Aeronautical Bulletin No. 18, issued by the Department of Commerce, Bureau of Air Commerce, which contains a complete digest of aeronautical legislation, revised to January 1, 1936.

Alabama: No. 493 Regular Session 1935 State Aviation Commission Act.

Illinois: Illinois Revised Statutes Chapter 5-A, Sections 1 to 37, Uniform State Aeronautical Regulatory Act.

Massachusetts: Laws of 1935, Chapter 418. Amended Regulatory Act.

Nebraska: Laws of 1935, Chapter 3, Regulatory Act.

Ohio: Laws of 1935, page 257, amending Regulatory Act.

Pennsylvania: Laws of 1935, page 121, amending Aeronautical Code.

Rhode Island: 1935 Rhode Island Acts, page 112, amending Aviation Commission Act.

So. Carolina: 1935 Acts of South Carolina, page 356, defining liability to guest passengers in aircraft. 1935 Acts of South Carolina, page 547, Uniform State Aeronautical Regulatory Act.

So. Dakota: 1935 Session Laws of South Dakota, page 68, Uniform State Aeronautical Regulatory Act.

Tennessee: 1935 Cumulative Supplement to Williams' Tennessee Code Ann., Section 2726, Uniform State Aeronautical Regulatory Act.

Vermont: 1935 Laws of Vermont Act No 130, amending licensing act.

W. Virginia: 1924 Supplement to West Virginia Code of 1932, page 96, amending Regulatory Act.

Wisconsin: Laws of 1935, Chapter 109, amending licensing act.

Your committee, through the kindness of the Air Law Institute of Northwestern University, for the aid of the Bar, calls to the attention of the Bar the following important cases decided since our last annual report:

ADMIRALTY:

U. S. v. *Northwest Air Service, Inc.* (U. S. C. C. A., 9th Circuit, Dec. 20, 1935), 180 Fed. (2d) 804.

A seaplane, while on land and while being repaired, is not a "vessel." Therefore, the lien of the repairman is not a maritime lien and hence is inferior to the lien of the U. S. Government for penalties for violation of customs laws. (See *Reinhardt* v. *Newport,* 232 N. Y. 115.)

AIRPORTS:

Krenzwinkle v. *City of Los Angeles* (Sup. Ct. of Calif., Nov. 20, 1935), 51 Pac. (2d) 1098.

Maintenance of airport held not beyond the power of a municipality as engaging in "commercial or industrial enterprises" forbidden by city charter.

So-called "indebtedness" for future rentals of airport property over long term of years not affected by constitutional limitation on municipal debt for any one year.

City of Iowa City and United Air Lines, Inc. v. *Tucker* (Dist. Court of Iowa for Johnson County, Sept. 14, 1935), 235 C. C. H. 1991.

Persons owning property adjoining an airport cannot erect obstructions to the flight of aircraft unless necessary for the reasonable and proper use and enjoyment of the land.

AIR SCHOOLS:

Adamowski v. *Curtiss-Wright Flying Service, Inc.* (Decision No. 2766, 3rd Dist. Court, Mass., unreported), 7 Journal of Air Law 292.

Contract of a minor for training as pilot not a contract for necessities and may be disaffirmed by minor and recovery of sums paid for instruction permitted.

AIR TRAFFIC RULES:

DeVotie v. *Cameron, et al,* (Sup. Ct. of Iowa, March 10, 1936), 265 N. W. 637.

Air traffic rules not binding on State Fair Board as the state, in conducting the fair is acting in its sovereign capacity.

Parket, et al., v. *Granger* (Sup. Court of Calif., Nov. 9, 1935), 52 Pac. (2d) 226.

Court will not take jurisdictional notice of air traffic rules for interstate air traffic where the accident occurs in intrastate traffic. (*Note:* Air traffic rules do not apply solely to interstate commerce. See Air Commerce Act of 1926.)

COMMON CARRIER:

Casteel v. *American Air Ways, Ins.* (Ct. of Appeals of Ky., Dec. 30, 1935) 88 S. W. (2d) 976.

Although an airplane is a common carrier and accepts knowingly a passenger afflicted with tuberculosis, if en route the passenger becomes so sick that not only his own life but the comfort and health of other passengers are imperiled, the carrier has the right and duty to remove such passenger.

CONTRACTS:

Casteel v. *American Air Ways, Inc.* (Ct. of Appeals of Ky., Dec. 30, 1935), 88 S. W. (2d) 976.

Removal of passenger afflicted with tuberculosis where his own life and the comfort and health of others is imperiled not a violation of contract of carriage.

Adamowski v. *Curtiss-Wright Flying Service, Inc.* (Decision No. 2766, 3rd Dist. Court, Mass., unreported), 7 Journal of Air Law 292.

Contract of a minor for training as pilot not a contract for necessities and may be disaffirmed by minor and recovery of sums paid for instruction permitted.

INSURANCE:

Day v. *Equitable Life Assurance Society* (U. S. C. C. A., 10th Cir., April 27, 1936), 235 Commerce Clearing House 508.

A simple pleasure trip in an airplane is not included within the meaning of the phrase "and shall not be the result of engaging as a passenger or otherwise in submarine or aeronautic expeditions." (*Note:* See *Head, et al.* v. *New York Life Ins. Co.*, Circuit Court of Appeals, 10th Circuit, 43 Fed. (2d) 517. See *Travelers' Insurance Co.* v. *Peake*, 82 Fla. 128. See *Goldsmith* v. *New York Life Ins. Co.*, C. C. A., 8th Cir., 69 Fed. (2d) 273.)

Gregory v. *Mutual Life Ins. Co.* (U. S. C. C. A., 8th Cir., July 5, 1935), 78 Fed. (2d) 522.

A provision in an insurance policy stipulating that the insurance company shall not be liable for double indemnity if the insured loses his life while "participating in aeronautics" does not apply where the insured is merely a guest in an airplane. (See *Day* v. *Equitable Assurance Society, supra.*)

Metropolitan Life Insurance Co. v. *Halcomb* (U. S. C. C. A., 9th Cir., Nov. 4, 1935), 79 Fed. (2d) ——.

A non-paying passenger, flying with a pilot whose license forbade carrying of passengers for hire, is not within the exception of an insurance policy which provides that no double indemnity will be paid for death resulting from "participation in aviation or aeronautics, except as a fare-paying passenger." (*Note:* The question as to whether or not this passenger was "participating in aeronautics or aviation" seems not to have been considered.)

LIENS:

U. S. v. *Northwest Air Service, Inc.* (U. S. C. C. A., 9th Circuit, Dec. 20, 1935), 180 Fed. (2d) 804.

A seaplane while on the land and while being repaired is not a "vessel" and, therefore, the lien of the repairman is not a maritime lien and hence is inferior to the lien of the U. S. Government for penalties for violation of customs laws. (See *Reinhardt* v. *Newport*, 232 N. Y. 115).

NEGLIGENCE:

DeVotie v. *Cameron, et al.* (Sup. Court of Iowa, Mar. 10, 1936, 265 N. W. 637.

State Fair Board and individual members of State Fair Board not liable for death of spectators because of negligently conducted airplane exhibition.

Parker, et al. v. *Granger* (Sup. Court of Calif., Nov. 29, 1935), 52 Pac. (2d) 226.

This case involves burden of proof and rule of *res ipsa loquitur* in suit for death of passenger absent evidence as to the cause. For a full discussion reference is made to the full opinion.

Murphy v. *Neely* (Pa. Sup. Court, Eastern Dist., 6-29-35), 179 Atl. 439.

Action of pilot in cutting off ignition in an emergency, not shown to have been the result of his fault, is not so unreasonable as to constitute negligence. (*Note: Res ipsa loquitur* rule not discussed.)

Budgett v. *Soo Sky Ways, Inc.* (Sup. Ct. N. Dak., March 30, 1936), 266 N. W. 253.

Rule of *res ipsa loquitur* does not apply where the deceased, a

licensed pilot was in a plane with dual controls, one available to him and one for the pilot operating the plane.

Evidence that the plane had dual controls hooked up, contrary to Department of Commerce regulations, did not necessarily constitute proof that this negligence was the cause of the accident.

Grein v. *Imperial Air Ways,* 80 L. J. 309, 180 L. T. 350, 52 Times L. R. 28 (Oct. 23, 1935).

Agreement limiting carriers' liability for negligence not binding on decedents' dependents.

V. International Aeronautical Law.

There have been no new international private law conventions formally submitted for consideration during the year elapsing since our last report.

Respectfully submitted,

Wm. A. Schnader, *Chairman,*
Joe Crider, Jr.,
George B. Logan,
Howard Osterhout,
Mabel Walker Willebrandt.

AMERICAN BAR ASSOCIATION AERONAUTICAL LAW COMMITTEE APPOINTMENTS

Announcement has been made of the appointment by President Frederick H. Stinchfield of the American Bar Association of the following members to the Standing Committee on Aeronautical Law for 1936-37:

William A. Schnader, *Chairman,* Philadelphia, Pa.
George B. Logan, St. Louis, Missouri
William P. MacCracken, Washington, D. C.
Clement L. Bouvé, New York City
H. A. Hauxhurst, Cleveland, Ohio

FEDERAL REGULATION

DESIGNATION OF THE CIVIL AIRWAYS AND RULES AND REGULATIONS GOVERNING INTENTIONAL INSTRUMENT FLYING ALONG CIVIL AIRWAYS

Designation by Secretary of Commerce Daniel C. Roper of ninety-eight routes as civil airways, authority for which is set forth in the Air Commerce Act of 1926, was announced under date of July 7, 1936. The routes are those flown by regularly scheduled airlines, most of them being equipped with lights, emergency landing fields and radio facilities for flights in darkness and poor visibility. The designation of these civil airways was preliminary to and established a working basis for regulations, effected by Amendments 4, 5, 6, and 7 to Aeronautics Bulletin No. 7, pertaining to airway traffic control, altitude of flight along airways, instrument flying along the airways and instrument flying ratings for non-air line pilots. The text of the order of designation and the amendments and instructions, effective August 15th, follow:

Designation of the Federal Airways System as Civil Airways of the United States

By virtue of and pursuant to the authority vested in me by the Air Commerce Act of 1926, as amended (44 Stat. 570, 49 U. S. C., Sec. 175) I hereby designate the following described air routes as civil airways necessary to foster air commerce and suitable for interstate or foreign air commerce.

Each civil airway designated herein shall include the navigable air space located vertically above an area on the horizontal plane contained within lines encircling each airport (hereinafter called terminal airport) at the ends thereof, with a radius of 25 miles from the center of said airport and also contained within two lines each parallel to and located 25 miles from the center line connecting the terminal airports thereof with such other points as hereinafter specified, to designate the route of said airway. Each civil airway designated herein shall also include the terminal and intermediate airports, emergency landing fields and all other air navigation facilities located or which may be hereafter located and established within the said area.

Provided that the civil airways designated herein shall not include any air space reservations set aside and protected by Executive Orders pursuant to the provisions of Section 4 of the Air Commerce Act of 1926, or the navigable air space above non-territorial waters or above foreign territory abutting the boundaries of the United States.

Civil Airway No. 1: Albany-Boston: Albany, New York, Municipal Airport, via Springfield, Mass., Municipal Airport and Worcester, Mass., Grafton Airport to Boston, Mass., Municipal Airport.

Civil Airway No. 2: Amarillo-Kansas City: Amarillo, Texas, English Field, via Woodward, Oklahoma, Municipal Airport, Wichita, Kansas, Municipal Airport to Kansas City, Missouri, Municipal Airport.

Civil Airway No. 4: Amarillo-St. Louis: Amarillo, Texas, English Field, via Oklahoma City, Municipal Airport, Tulsa, Okla., Municipal Airport, Springfield, Mo., Municipal Airport, to St. Louis, Mo., Lambert Field.

Civil Airway No. 5: Atlanta-Charleston: Atlanta, Georgia, Municipal Airport, via Augusta, Ga., Daniel Field (Municipal), Columbia, S. C., Municipal Airport, to Charleston, S. C., Municipal Airport.

Civil Airway No. 6: Atlanta-Nashville: Atlanta, Georgia, Municipal Airport, via Chattanooga, Tenn., Municipal Airport to Nashville, Tenn., Municipal Airport.

Civil Airway No. 7: Atlanta-New York: Atlanta, Georgia, Municipal Airport, via Spartanburg, S. C., Municipal Airport, Charlotte, N. C. (Commercial Airport), Greensboro, N. C., Lindley Field (Municipal), Richmond, Va., Richard E. Byrd Field (Municipal), Washington, D. C., Washington-Hoover Airport, Camden, N. J., Central Airport (Commercial) to Newark, N. J. (Municipal) Airport.

Civil Airway No. 9: Boston-Bar Harbor: Boston, Mass., Municipal Airport, via Portsmouth, N. H., Portsmouth Airport (Auxiliary), Portland, Maine, Portland Airport (Scarboro Commercial), Augusta, Maine, State Airport, Waterville, Maine, Municipal Airport, Bangor, Maine, Municipal Airport to Bar Harbor, Maine, Municipal Airport.

Civil Airway No. 10: Boston-Montreal: Boston, Mass., Municipal Airport, via Manchester, N. H., Municipal Airport, Concord, N. H., Municipal Airport, White River Junction, Twin State Airport (Commercial), Montpelier, Vt., Barre-Montpelier Airport (Commercial) to Burlington, Vt., Municipal Airport.

Civil Airway No. 12: Brownsville-Fort Worth: Brownsville, Texas, Municipal Airport, via Kingsville, Tex., Site 11, Corpus Christi, Tex., Municipal Airport, San Antonio, Tex., Winburn Field (Municipal), Austin, Tex., Robt. Mueller Airport (Municipal), Waco, Texas, Rich Field (Municipal) to Fort Worth, Texas, Meacham Field.

Civil Airway No. 14: Buffalo-New York: Buffalo, New York, Municipal Airport, via Elmira, N. Y., American Airlines Field (Commercial), Scranton, Pa., Municipal Airport to Newark, N. J., Municipal Airport.

Civil Airway No. 15: Cheyenne-Billings: Cheyenne, Wyoming, Municipal Airport, via Douglas, Wyo., American Legion Airport, Casper, Wyo., Wardwell Field (Municipal), Sheridan, Wyo., Municipal Airport, Hardin, Mont., Municipal Airport to Billings, Mont., Municipal Airport.

Civil Airway No. 16: Chicago-Milwaukee: Chicago, Illinois, Municipal Airport to Milwaukee, Wisconsin, Municipal Airport.

Civil Airway No. 17: Chicago-New York: Chicago, Illinois, Municipal Airport, via Lansing, Ill., Ford Airport, Toledo, Ohio, Transcontinental Airport (Municipal), Sandusky, Ohio, Municipal Airport, Cleveland, Ohio, Municipal Airport, Bellefont, Pa., Dept. of Commerce Emergency Field (Site 5 2-B), Allentown, Pa., Allentown-Bethlehem Airport (Municipal), to Newark, N. J., Newark Airport (Municipal).

Civil Airway No. 19: Chicago-Twin Cities: Chicago, Illinois, Municipal Airport, via Rockford, Ill., Machesney Airport (Commercial) Lone Rock, Wis., Dept. of Commerce Emergency Field (Site 15), LaCrosse, Wis., LaCrosse County Airport to St. Paul, Minn., Holman Municipal Airport.

Civil Airway No. 19-1: Chicago-Twin Cities via Rochester: LaCrosse, Wisconsin, LaCrosse County Airport, via Rochester, Minn., Rochester Airport (Commercial), to St. Paul, Minn., Holman Municipal Airport.

Civil Airway No. 20: Cincinnati-Chicago: Cincinnati, Ohio, Municipal Airport, via Indianapolis, Ind., Municipal Airport, La Fayette, Ind., Purdue University Airport (Private), to Lansing, Ill., Ford Airport.

Civil Airway No. 21: Cincinnati-Washington: Cincinnati, Ohio, Municipal Airport, via Charleston, W. Va., Wertz Field (Municipal) Elkins, W. Va., Harpers Field (Municipal), to Washington, D. C., Washington-Hoover Airport.

Civil Airway No 22: Cleveland-Albany: Cleveland, Ohio, Municipal Airport, via Erie, Pa., Downing Airport (Commercial), Buffalo, N. Y., Municipal Airport, Rochester, N. Y., Municipal Airport, Syracuse, N. Y., (Municipal Airport), Utica, N. Y., Municipal Airport to Albany, N. Y., Municipal Airport.

Civil Airway No. 23: Toledo-Detroit: Toledo, Ohio, Transcontinental Airport (Municipal), via Wayne County Airport to Detroit, Mich., Detroit City Airport.

Civil Airway No. 25: Columbus-Philadelphia: (a) Columbus, Ohio, Port Columbus Airport (Municipal), via Wheeling, W. Va., Scott Field (Commercial) to Pittsburgh, Pa., Pittsburgh,Allegheny Airport.

(b) McConnellsburg, Pa., Department of Commerce Emergency Field (Site 9-B) via Harrisburg, Pa., Harrisburg Airport (Commercial), to Camden, N. J., Central Airport (Commercial).

Civil Airway No. 26: Dallas-Louisville: Dallas, Texas, Love Field, Municipal Airport, via Texarkana, Ark., Municipal Airport, Little Rock, Ark., Municipal Airport, Memphis, Tenn., Municipal Airport, Nashville, Tenn., Municipal Airport, to Louisville, Ky., Bowman Field.

Civil Airway No. 31: El Paso-Fort Worth: El Paso, Texas, Municipal Airport, via Wink, Texas, Dept. of Commerce Emergency Field (Site 18), Big Springs, Tex., Municipal Airport, Sweetwater, Tex., Municipal Airport, Eastland, Tex., Dept. of Commerce Emergency Field (Site 45-B), to Fort Worth, Tex., Meacham Field (Municipal).

Civil Airway No. 32: El Paso-Pueblo: El Paso, Texas, Municipal Airport, via Las Cruces, N. M., Las Cruces Airport (Auxiliary), Albuquerque, N. M., Albuquerque Airport (Commercial), Santa Fe, N. M., Municipal Airport, Las Vegas, N. M., Las Vegas Airport (Auxiliary), Wagon Mound, N. M., Wagon Mound Airport (Auxiliary), Trinidad, Colo., Trinidad Airport (Auxiliary), to Pueblo, Colo., Municipal Airport.

Civil Airway No. 33: Fargo-Winnipeg: Fargo, N. D., Hector Field (Municipal), via Grand Forks, N. D., Municipal Airport, Pembina, N. D., Municipal Airport, to a point on the international boundary where a straight line between Pembina, N. D., Municipal Airport and Winnipeg, Canada, Winnipeg Airport, intersects said boundary.

Civil Airway No. 34: Fort-Worth-Amarillo: Fort Worth, Tex., Meacham Field, via Wichita Falls, Tex., Kell Field (Municipal), to Childress, Tex., Childress Field (Auxiliary), to Amarillo, Tex., English Field.

Civil Airway No. 35: Fort Worth-Atlanta: Fort Worth, Texas, Meacham Field, via Dallas, Tex., Love Field, Shreveport, La., Municipal Airport, Jackson, Miss., Municipal Airport, Meridian, Miss., Key Airport (Municipal), Birmingham, Ala., Municipal Airport, to Atlanta, Ga., Municipal Airport.

Civil Airway No. 37: Fort Worth-Wichita: Fort Worth, Texas, Meacham Field, via Ardmore, Okla., Dept. of Commerce Emergency Field (Site 10), Oklahoma City, Okla., Oklahoma City Air Terminal (Municipal), Ponca City Municipal Airport to Wichita, Kans., Municipal Airport.

Civil Airway No. 38: Galveston-Waco: Galveston, Texas, Municipal Airport, via Houston, Tex., Municipal Airport to Waco, Tex., Rich Field (Municipal).

Civil Airway No. 41: Helena-Twin Cities: Helena, Montana, Municipal Airport, via Bozeman, Mont., Beacon Site 8, Billings, Mont., Municipal Airport, Miles City, Mont., Municipal Airport Dickinson, N. D., Dept. of Commerce Emergency Field (Site 49), Bismarck, N. D., Municipal Airport, Jamestown, N. D., Municipal Airport, Fargo, N. D., Hector Field (Municipal), Alexandria, Minn. Dept. of Commerce Emergency Field (Site 87), Minneapolis, Minn., Wold-Chamberlain Field (Municipal), to St. Paul, Minn., Holman Municipal Airport.

Civil Airway No. 43: Indianapolis-Dayton: Indianapolis, Indiana, Municipal Airport, to Dayton, Ohio. Municipal Airport.

Civil Airway No. 44: Jacksonville-Richmond: Jacksonville, Florida, Municipal Airport, via Savannah, Ga., Municipal Airport, Charleston, S. C., Municipal Airport, Florence, S. C., Dept. of Commerce Emergency Field (Site 29), Raleigh, N. C., Municipal Airport to Richmond, Va., R. E. Byrd Field (Municipal).

Civil Airway No. 45: Kansas City-Chicago: Kansas City, Missouri, Municipal Airport, via Burlington, Iowa, Municipal Airport, to Chicago, Ill. Municipal Airport.

Civil Airway No. 47: Kansas City-Omaha: Kansas City, Missouri, Municipal Airport, via St. Joseph, Mo., Municipal Airport, to Omaha, Neb., Municipal Airport.

Civil Airway No. 48: Kansas City-St. Louis: Kansas City, Missouri, Municipal Airport, to St. Louis, Mo., Lambert Field (Municipal).

Civil Airway No. 49: Los Angeles-Amarillo: Saugus, Calif., Dept. of Commerce Emergency Field (Site 3-A), via Daggett, Calif., Dept. of Commerce Emergency Field (Site 10), Bagdad, Calif., Dept. of Commerce Emergency Field (Site 16), Kingman, Ariz., Port Kingman (Commercial), Winslow, Ariz., T. & W. A. (Commercial), Albuquerque, N. M., Albuquerque Airport (Commercial), to Amarillo, Tex., English Field (Commercial).

Civil Airway No. 51: Los Angeles-Phoenix: Los Angeles, Calif., Municipal Airport, via Fontana, Calif., Dept. of Commerce Emergency Field (Site 5), Indio, Calif., Indio Airport (Commercial), Blythe, Calif., Blythe Airport (Auxiliary), to Phoenix, Ariz., Sky Harbor Airport (Municipal).

Civil Airway No. 52: Los Angeles-Salt Lake City: Daggett, Calif., Dept. of Commerce Emergency Field (Site 10), via Las Vegas, Nev., Las Vegas Airport (Commercial), St. George, Utah, Dept. of Commerce Emergency Field (Site 37-A), to Salt Lake City, Utah, Municipal Airport.

Civil Airway No. 53: Los Angeles-San Francisco: Los Angeles, Calif., Municipal Airport, via Saugus, Calif., Dept. of Commerce Emergency Field (Site 3-A), Bakersfield, Calif., Kern County Airport, Visalia, Calif., Municipal Airport, Fresno, Calif., Fresno-Chandler Airport (Municipal), Merced, Calif., Municipal Airport, Oakland, Calif., Municipal Airport, to San Francisco, Calif., Municipal Airport.

Civil Airway No. 54: Louisville-Cleveland: Louisville, Kentucky, Bowman Field (Municipal), via Cincinnati, Ohio, Lunken Airport (Municipal), Dayton, Ohio, Municipal Airport, Columbus, Ohio, Port Columbus Airport (Municipal), to Cleveland, Ohio, Municipal Airport.

Civil Airway No. 55: Louisville-Indianapolis: Louisville, Kentucky, Bowman Field (Municipal), to Indianapolis, Ind., Municipal Airport.

Civil Airway No. 56: Miami-Atlanta: Miami, Florida, Municipal Airport, via West Palm Beach, Fla., Belvedere Airport (Commercial), Daytona Beach, Fla., Municipal Airport, Jacksonville, Fla., Municipal Airport, Waycrosse, Ga., Ware County (Municipal), Macon, Ga., Municipal Airport, to Atlanta, Ga., Municipal Airport.

Civil Airway No. 57: Michigan Airways-South Bend-Detroit: South Ben, Ind., Municipal Airport, via Kalamazoo, Mich., Lindbergh Field (Municipal), Jackson, Michigan, Reynolds Airport (Municipal), to Detroit, Mich., Detroit City Airport.

Civil Airway No. 58: Milwaukee-Detroit: Milwaukee, Wisconsin, Mu-unicipal Airport, via Muskegon, Mich., Muskegon County Airport, Grand Rapids, Mich., Kent County Airport, Lansing, Mich., Capital City Airport (State), to Detroit, Mich., Detroit City Airport.

Civil Airway No. 59: Milwaukee-Lone Rock: Milwaukee, Wisconsin, Municipal Airport, via Madison, Wis., Municipal Airport to Lone Rock, Wis., Dept. of Commerce Emergency Field (Site 15).

Civil Airway No. 60: Nashville-Washington: Nashville, Tenn., Municipal Airport, via Knoxville, Tenn., McGhee-Tyson Airport, Bristol Tenn., Municipal Airport, Roanoke, Va., Municipal Airport, Lynchburg, Va., Preston Glenn Airport, to Washington, D. C., Washington-Hoover Airport.

Civil Airway No. 61: New Orleans-Atlanta: New Orleans, La., Shushan Airport (Municipal), via Mobile, Ala., Bates Field (Municipal), Montgomery, Ala., Municipal Airport, Opelika, Ala., Dept. of Commerce Emergency Field (Site 33), to Atlanta, Ga., Municipal Airport.

Civil Airway No. 62: New Orleans-St. Louis: New Orleans, La., Shushan Airport (Municipal), via Jackson, Miss., Municipal Airport, Memphis, Tenn., Municipal Airport, Advance, Mo., Dept. of Commerce Emergency Field (Site 48), to St. Louis, Mo., Lambert Field (Municipal).

Civil Airway No. 64: New York-Boston: Newark, New Jersey, Newark Airport, to Boston, Mass., Municipal Airport.

Civil Airway No. 64-1: New York-Boston via Hartford and Providence: Newark, New Jersey, Newark Airport, via New Haven, Conn., Municipal

Airport, Hartford, Conn., Rentschler Field (Commercial), Providence, R. I., Rhode Island State Airport to Boston, Mass., Municipal Airport.

Civil Airway No. 65: New York-Montreal: Newark, New Jersey, Municipal Airport, via Albany, New York, Municipal Airport, Glens Falls, N. Y., Floyd Bennett Field (Municipal), and Burlington, Vt., Municipal Airport, to a point on the United States Canadian boundary where a straight line between Burlington, Vt., Municipal Airport, and Montreal, Canada, Montreal Airport, intersects said boundary line.

Civil Airway No. 67: Omaha-Chicago: Omaha, Nebraska, Municipal Airport, via Des Moines, Iowa, Municipal Airport, Iowa City, Municipal Airport, Davenport, Iowa, Cram Field (Municipal), to Site 36 Kansas City-Chicago Airway.

Civil Airway No. 68: Omaha-Sioux Falls: Omaha, Nebraska, Municipal Airport, via Sioux City, Iowa, Rickenbacker Airport (Commercial), to Sioux Falls, S. D., Municipal Airport.

Civil Airway No. 71: Portland-Spokane: Portland, Oregon, Municipal Airport, via North Dalles, Wash., Site 7-A, Umatilla, Ore., Site 17, Pendleton, Ore., Municipal Airport, Pasco, Wash., Franklin County Airport, to Spokane, Wash., Felts Field (Municipal).

Civil Airway No. 72: Pueblo-Cheyenne: Pueblo, Colorado, Municipal Airport, via Denver, Colo., Denver, Colo., Airport (Municipal), to Cheyenne, Wyo., Municipal Airport.

Civil Airway No. 75: Salt Lake City-Great Falls: Salt Lake City, Utah, Municipal Airport, via Ogden, Utah, Municipal Airport, Pocatello, Idaho, Municipal Airport, Idaho Falls, Idaho, Municipal Airport, Dubois, Dept. of Commerce Emergency Field (Site 23), Dell, Mont., Dept. of Commerce Emergency Field (Site 27-B), Dillon, Mont., Municipal Airport, Whitehall, Mont., Dept. of Commerce Emergency Field (Site 36-A), Butte, Mont., Municipal Airport, Helena, Mont., Municipal Airport, to Great Falls, Mont., Municipal Airport.

Civil Airway No. 76: Salt Lake City-Omaha: Salt Lake City, Utah, Municipal Airport, via Wanship, Utah, Dept. of Commerce Emergency Field (Site 2-B), Granger, Wyo., Dept. of Commerce Emergency Field (Site 12), Rock Springs, Wyo., Municipal Airport, Medicine Bow, Wyo., Dept. of Commerce Emergency Field (Site 31), Laramie, Wyo., Dept. of Commerce Emergency Field (Site 36), Cheyenne, Wyo., Municipal Airport, North Platte, Neb., Municipal Airport, Kearney, Neb., Dept. of Commerce Emergency Field (Site 71), Grand Island, Neb., Municipal Airport, Lincoln, Neb., Lindbergh Field (Municipal), to Omaha, Neb., Municipal Airport.

Civil Airway No. 77: Salt Lake City-Pendleton: Salt Lake City, Utah, Municipal Airport, via Burley, Idaho, Municipal Airport, Mountain Home, Idaho, Dept. of Commerce Emergency Field (Site 25), Boise, Idaho, Municipal Airport, Baker, Ore., Municipal Airport, LaGrande, Ore., Dept. of Commerce Emergency Field (Site 45-A), to Pendleton, Ore., Municipal Airport.

Civil Airway No. 79: San Antonio-New Orleans: San Antonio, Texas, Municipal Airport, via Houston, Tex., Municipal Airport, Beaumont, Tex., Municipal Airport, Baton Rouge, Municipal Airport, to New Orleans, La., Shushan Airport (Municipal).

Civil Airway No. 80: Phoenix-El Paso: Phoenix, Arizona, Municipal Airport, via Tucson, Ariz., Municipal Airport, Benson, Ariz., Dept. of Commerce Emergency Field (Site 45-B), Douglas, Ariz., Municipal Airport, Rodeo, N. M., Dept. of Commerce Emergency Field (Site 57-A), to El Paso, Tex., Municipal Airport.

Civil Airway No. 80-1: Phoenix-El Paso—Benson to Rodeo: Benson, Ariz., Dept. of Commerce Emergency Field (Site 45-B), to Rodeo, N. M., Dept. of Commerce Emergency Field (Site 57-A).

Civil Airway No. 81: San Diego-Los Angeles: San Diego, California, Lindbergh Field (Municipal), via Oceanside, Calif., Dept. of Commerce Emergency Field (Site 3), to Los Angeles, Calif., Municipal Airport.

Civil Airway No. 82: San Francisco-Salt Lake City: San Francisco,

Calif., Municipal Airport, via Oakland, Calif., Municipal Airport, Sacramento, Calif., Municipal Airport, Blue Canyon, Calif., Dept. of Commerce Emergency Field (Site 13), Reno, Nev., Hubbard Field (Commercial), Elko, Nev., Keddie Field (Municipal), Wells, Nev., Dept. of Commerce Emergency Field (Site 46-B), Wendover, Utah, Dept. of Commerce Emergency Field (Site 52), to Salt Lake City, Utah, Municipal Airport.

Civil Airway No. 83: San Francisco-Seattle: San Francisco, Calif., Municipal Airport, via Oakland, Calif., Municipal Airport, Suisun, Calif., Dept. of Commerce Emergency Field (Site 4), Redding, Calif., Benton, Field (Municipal), Montague, Calif., Municipal Airport, Medford, Ore., Municipal Airport, Grants Pass, Ore., Josephine County Airport, Eugene, Ore., Municipal Airport, Portland, Ore., Municipal Airport, Chehalis, Wash., Municipal Airport, Tacoma, Wash., Municipal Airport to Seattle, Wash., Boeing Field (Municipal).

Civil Airway No. 84: Seattle-Helena: Seattle, Wash., Boeing Field, via Ellensburg, Wash., Municipal Airport, Ephrata, Wash., Dept. of Commerce Emergency Field (Site 13-B), Spokane, Wash., Municipal Airport, Missoula, Mont., Municipal Airport, Drummond, Mont., Dept. of Commerce Emergency Field (Site 44-B), to Helena, Mont., Municipal Airport.

Civil Airway No. 84-1: Seattle-Helena-Wenatchee Branch: Ellensburg, Wash., Municipal Airport, via Wenatchee, Wash., Fancher Field (Municipal), to Ephrata, Wash., Dept. of Commerce Emergency Field (Site 13-B).

Civil Airway No. 84-2: Seattle-Helena—Butte-Cut-Off: Drummond, Mont., Dept. of Commerce Emergency Field (Site 44-B), via Deer Lodge, Mont., Deer Lodge Airport (Auxiliary), Butte, Mont., Municipal Airport, Whitehall, Mont., Dept. of Commerce Emergency Field (Site 36-A), to Bozeman, Mont., Beacon Site 8.

Civil Airway No. 85: Seattle-Vancouver, B. C.: Seattle, Wash., Boeing Field, via Everett, Wash., Everett Airport (Auxiliary), and Bellingham, Wash., Graham Field (Commercial), to a point on the U. S.-Canadian boundary where a straight line between Bellingham, Wash., Graham Field (Commercial), and Vancouver, B. C., Vancouver Airport, intersects said international boundary.

Civil Airway No. 88: Sioux Falls-Bismarck: Sioux Falls, S. D., Municipal Airport, via Huron, S. D., Municipal Airport, Aberdeen, S. D., Municipal Airport, to Bismarck, N. D., Municipal Airport.

Civil Airway No. 89: Sioux Falls-Twin Cities: Sioux Falls, S. D., Municipal Airport, to Minneapolis, Minn., Municipal Airport.

Civil Airway No. 91: St. Louis-Chicago: St. Louis, Missouri, Lambert Field (Municipal), via Springfield, Ill., Municipal Airport, to Morse, Ill., Dept. of Commerce Emergency Field (Site 29).

Civil Airway No. 93: St. Louis-Indianapolis: St. Louis, Missouri, Lambert Field (Municipal), to Indianapolis, Ind., Municipal Airport.

Civil Airway No. 94: St. Petersburg-Daytona Beach: St. Petersburg, Fla., Albert Whitted Airport (Municipal), via Tampa, Fla., Drew Field (Municipal), Haines City, Fla., Legion Airport, Orlando, Fla., Municipal Airport, to Daytona Beach, Fla., Municipal Airport.

Civil Airway No. 98: Washington-Cleveland: Washington, D. C., Washington-Hoover Airport, via McConnellsburg, Pa., Dept. of Commerce Emergency Field (Site 9-B), Pittsburgh, Pa., Allegheny County Airport, Akron, Ohio, Municipal Airport, to Cleveland, Ohio, Municipal Airport.

July 7, 1936.

DANIEL C. ROPER,
Secretary of Commerce.

Amendments to Aeronautics Bulletin No. 7*

Amendment No. 4:

Pursuant to the Air Commerce Act of 1926 (44 Stat. 568) as amended,

* Edition of January 1, 1934.

and as further amended, by the Act of June 19, 1934 (44 Stat. 1113), and the Act of June 19, 1934 (44 Stat. 1116), Chapter 7 of Aeronautics Bulletin No. 7 is hereby amended by adding Paragraph (G), under Section 70, as follows:

(G) Civil Airway Traffic Control.—(1) *Intentional Instrument Flights:* (a) No intentional instrument flight of aircraft shall be made or continued, or caused to be made or continued, on a civil airway when a weather condition of broken clouds or solid overcast exists on said airway unless the person in command of said aircraft shall have demonstrated satisfactorily to an authorized Bureau of Air Commerce inspector his ability to navigate on instruments (meaning to navigate under a hood or without benefit of extra-cockpit view) and to use radio range facilities, and unless there is installed in the aircraft, and properly functioning at the time of such flight, such air navigation instruments and equipment as have been approved by said Bureau of Air Commerce inspector as reasonably necessary for such flight.

(b) No intentional instrument flight of aircraft shall be made or continued, or caused to be made or continued, on a civil airway under known icing weather conditions unless, in addition to compliance with all of the requirements of (a) immediately foregoing, such aircraft is further possessed of additional equipment (such as deicing equipment) as has been approved by said Bureau of Air Commerce inspector as reasonably necessary for such flight.

(c) No non-scheduled intentional instrument flight of aircraft shall be made or continued, or caused to be made or continued, on a civil airway when severe storms (such as severe electrical or dust storms, etc.) exist along said airway.

(d) Intentional instrument flights under simulated conditions (under a hood or made without benefit of extra-cockpit view) may be conducted on a civil airway, for training purposes, provided that an additional pilot, having unobstructed view and with access to the controls of the aircraft, accompanies the flight (for purposes of safety) and provided further that, when a weather condition of broken clouds or solid overcast exists on a civil airway, no such training flight shall be conducted on said airway within five hundred (500) feet vertically from the upper or lower level of the broken cloud or overcast stratum, as the case may be.

(2) *Intentional Instrument Flight Plan:* (a) Before the departure of any aircraft making an intentional instrument flight on a civil airway (except a flight for training purposes as provided in paragraph (d) of part (1) immediately above), or when visibility on said airway is less than one mile on the route to be flown, or whenever a flight can only be continued as an intentional instrument flight, the person in command of said aircraft shall present a flight plan, for forwarding to the point of destination, directly or by telephone or telegraph, to one of the following agencies (whichever is nearest or most available, but in the order listed if equally available):

(1) Airway traffic control station,
(2) Airport control tower,
(3) Department of Commerce teletype station, or
(4) Air line radio station.

(b) The flight plan aforementioned shall contain the following information:

(1) Proposed time of departure,
(2) Proposed cruising altitude,
(3) Type of equipment, and
(4) Estimated flying time between stops and destination.

(3) *Intentional Instrument Flight Altitude:* (a) As used in flight plans, or in position reports while flying, altitude shall be calculated in terms of feet above sea level as determined from an altimeter adjusted to correspond with the nearest barometric station.

(b) Every eastbound aircraft (meaning every aircraft flying a true

course of 0° (or 360°) to, but not including, 180°), flying on a civil airway, shall fly at an ODD thousand foot level (such as 1,000, 3,000, 5,000, 7,000, etc., feet).

(c) Every westbound aircraft (meaning every aircraft flying a true course of 180° to, but not including, 360°), flying on a civil airway, shall fly at an EVEN thousand foot level (such as 2,000, 4,000, 6,000, 8,000, etc.. feet).

(d) No deviation from the provisions of (b) or (c), immediately foregoing, may be made except for reason of safety in an emergency (following which flight must be resumed at one of the prescribed levels as quickly as possible), or when some different altitude has been authorized by an Airway Traffic Control station.

(e) All crossings of a civil airway shall be effected at an altitude of five hundred (500) feet above or below the prescribed odd or even thousand foot altitudes cruising levels governing east and westbound flights respectively (such as 500, 1,500, 2,500, etc., feet).

(4) *Additional Instructions or Regulations:* All aircraft making intentional instrument flights on a civil airway shall observe and comply with instructions from the appropriate airport control operator and shall also observe and comply with all local airport regulations.

Approved, to take effect August 15, 1936.

July 14, 1936.

DANIEL C. ROPER,
Secretary of Commerce.

Amendment No. 5:

Pursuant to the Air Commerce Act of 1926 (44 Stat. 568) as amended, Chapter 5 of Aeronautics Bulletin No. 7 is hereby amended by adding Paragraph (H), under Section 49, as follows:

(H) Non-Scheduled Instrument Rating:
- (1) Transport, Limited Commercial or Private pilot license.
- (2) 200 hours of solo flying time.
- (3) A minimum of twenty hours instrument flying instruction and practice.

Amendment No. 6:

Pursuant to the Air Commerce Act of 1926 (44 Stat. 568) as amended, Chapter 5 of Aeronautics Bulletin No. 7 is hereby amended by adding Paragraph (H), under Sec. 52, as follows:

(H) Non-Scheduled Instrument Rating:
- (1) Practical flight test in a hooded cockpit under the conditions of instrument flying, performing the maneuvers required by Par. G, (2), (a), (b), (c), (d), and (e) of this section, and the following:
  - (a) Directional radio problems:
    - (1) Tuning radio.
    - (2) Orientation.
    - (3) Following radio beam.
    - (4) Locating cone of silence.
    - (5) Letting down to safe altitude on the beam.

Amendment No. 7:

Pursuant to the Air Commerce Act of 1926 (44 Stat. 568) as amended, Chapter 5 of Aeronautics Bulletin No. 7 is hereby amended by adding at the end of Paragraph B, under Section 54, the following:

"Non-Scheduled Instrument Rating may be renewed if the holder thereof, being a transport or limited commercial pilot, has had two hours of in-

strument flying practice within the six months preceding expiration date of license; if a private pilot, he shall have had four hours of instrument flying practice time within a year, preceding the expiration date of license, two hours of which shall have been within six months thereof."

Approved to take effect August 15, 1936.

J. M. JOHNSON,
Acting Secretary of Commerce.

General Instructions

A. *General.* The amendments [in Section II] above need not affect the non-schedule commercial pilot or operator doing contact flying whether on the Federal Airways or not, provided he complies with the minimum ceiling and visibility requirement. (Chapter 7, Sec. 69, Aeronautics Bulletin No. 7; Amendment No. 4 to Aeronautics Bulletin No. 7.)

If a pilot desires to do intentional instrument flying over a civil airway after August 15, 1936, it will be necessary for him to have a licensed aircraft equipped with two-way radio and such air navigation instruments as have been approved by a Bureau of Air Commerce Inspector as reasonably necessary for instrument flying and the pilot hold a non-schedule instrument rating. Military aircraft shall have equivalent equipment and pilots shall have equivalent qualifications as outlined above.

B. *Procedure.* 1. It will be required of the pilot in all cases where intentional instrument flying will be done along a civil airway or when visibility is less than one mile along the civil airway to be flown to submit a flight plan direct or by telephone or telegraph to one of the following and have same approved before entering designated airway:

A. Airway Traffic Control Office.
B. Airport Control Tower.
C. Department of Commerce Radio or Teletype Operator.
D. Air Line Radio Station.

giving the following information:

1. Proposed time of departure.
2. Proposed cruising altitude.
3. Type of equipment.
4. Estimated flying time between stops and destination.

2. When a flight plan is submitted it will be relayed to Department of Commerce Radio or Teletype Station. If there is no airway traffic control station functioning in the area through which flight is proposed, the flight plan shall be transmitted to the air line radio station of the air line company operating over that route.

3. Radio or teletype station transmits plan to point of destination for confirmation, through intermediate stops shown in flight plan.

4. When confirmed by destination or stop, such confirmation will be transmitted to the originating radio or teletype station with any changes or special instructions, in order that the pilot may be properly informed.

5. When the flight plan calls for intermediate stops enroute, confirmation need only be obtained from radio station to radio station (stop to stop) in the order listed in the scheduled flight plan. The originating radio station will transmit flight plan through intermediate stops to destination. The radio station listed as first stop will immediately, upon receipt of flight plan check with airport, operating air line and other filed flight plans, and if approved, shall transmit to the station of origin, confirmation with suggested changes and any special instructions necessary. The radio station listed as first stop will also secure confirmation from the second radio station listed in order to have confirmation ready when plane arrives. Each succeeding radio station will do likewise, transmitting confirmation to preceding stop until destination is reached. The pilot will check in at each stop listed and secure confirmation before continuing flight.

6. If a flight plan is disapproved, such information will be transmitted to the point of origin or station requesting confirmation in order that the pilot may be notified.

7. When a flight plan is approved, the pilot proceeds in accordance with his flight plan and contacts the first radio station enroute. Thereafter he shall contact each radio station when passing, or upon a pre-arranged schedule of contacts.

8. On approaching his destination or stop, he shall contact the airport radio control tower if functioning, otherwise, the radio station, for landing instructions.

9. After landing, the pilot shall contact the radio station in person or by telegraph or telephone, and inform them of the completion of the flight.

10. When a confirmed flight plan has been cancelled by the pilot for any reason, he must immediately notify the station to which his flight plan was submitted.

C. *Flying Altitudes.* 1. It is required on all flights, whether on instruments or not, during good or bad weather, after August 15, 1936, that the Odd altitude East and Even altitude West be observed outlined as follows:

All flights on a true course of zero (360°) to, but not including 180° shall fly at Odd Thousand feet levels, that is, 1,000, 3,000, 5,000, etc.

All flights on a true course of 180° to, but not including zero (360°) shall fly at Even Thousand feet levels, that is, 2,000, 4,000, 6,000, etc.

2. When crossing a civil airway the aircraft shall fly at 500 feet *above* the altitude at which the flight is being made.

(Amendment to regulations permitting flights to cross a civil airway at 500 feet above or below the altitude at which the flight is being made, is in process, omitting the words "or below".)

3. Aircraft will always report their altitude in feet above sea level from sensitive barometric altimeter, adjusted to correspond with the nearest station barometer which will be maintained at the sea level altitude of the ground station.

These rules and regulations are the outgrowth of two years study on the many angles involved in trying to arrive at a satisfactory solution to airways control, and while they may not be 100% applicable to every situation or condition, it is felt that with the earnest cooperation of all concerned, much can be accomplished to eliminate the hazard of collisions. These rules are subject to amendment and it is requested that all concerned will offer constructive criticism and helpful suggestions with the viewpoint of improving, from time to time, our Air Traffic Rules for the benefit of all concerned.

It is the desire of the Bureau of Air Commerce to avoid any unnecessary regulation or interference with the operation of any flyer, but it is the responsibility of the Bureau to promulgate and enforce regulations that will provide reasonable safety for all civil air travellers.

All Bureau personnel are instructed to thoroughly familiarize themselves with both the letter and the spirit of these new regulations and to render every assistance to all operators and to avoid any arbitrary action that may unnecessarily inconvenience any operator who is conscientiously trying to comply with our regulations.

All concerned are invited to aid the Bureau in educating the flying public in regard to Air Traffic Control and to help bring about 100% cooperation on the part of all types of operators affected.

The degree of success that may be attained in Air Traffic Control will depend in its initial stages more upon the cooperative spirit of those affected than upon the actual wording of the regulation.

EUGENE L. VIDAL,
Director of Air Commerce.

SPECIAL AIR TRAFFIC RULE

Pursuant to the authority contained in Section 3 (e) of the Air Commerce Act of 1926, as amended (44 Stat. 568), the following Special Air Traffic Rule was promulgated for the operation of aircraft at or near Roosevelt Field, Garden City, Long Island, N. Y., for the period October 10 to 12, 1936, inclusive:

No aircraft shall be flown within one-half mile of the boundaries of Roosevelt Raceway at any altitude, except when landing or taking off from Roosevelt Field, unless special permission has been granted by the Secretary of Commerce. In landing and taking off, no aircraft shall be flown within the boundaries of the Raceway.

DANIEL C. ROPER,
Secretary of Commerce.

October 3, 1936.

INTER-LINE SAFETY AGREEMENT APPROVED BY THE DEPARTMENT OF COMMERCE COVERING REGULATIONS OF AIRLINE TRAFFIC IN THE VICINITY OF LOS ANGELES

BUREAU OF AIR COMMERCE NOTICE TO AIRMEN

The following agreements have been agreed to and, therefore, become binding on aircraft operated by American Airlines, Pan American Airways, Transcontinental and Western Air, United Air Lines Transport Corporation, and Western Air Express:

General Agreements

(Effective 12:01 A. M. August 15, 1936.)

1. Aircraft of the above operators will always report their altitude in feet above sea level from Kollsman altimeters adjusted to correspond with its nearest ground station Kollsman barometer which will be maintained at sea level altitude of the ground station. Kollsman readings of the ground stations of the various operators shall be checked by the Control Tower each day at 6:00 A. M.

2. Pilots not flying at a constant altitude will report whether they are climbing or descending, and if practicable, state the altitude at which they will again resume normal level flight.

3. All eastbound planes, or any planes following a flight path with a true course of from zero (360°) to, but not including 180 degrees, shall always fly at odd thousand foot levels, that is 1,000 ft., 3,000 ft., 5,000 ft., etc., and westbound planes or any planes following a flight path with a true course of from 180 degrees to, but not including zero (360°), shall always fly at even thousand foot levels, that is, 2,000 ft., 4,000 ft., 6,000 ft., etc. This regulation must be followed day and night, and under all weather conditions, except when taking on ice, or when meeting up with a condition, which prohibits safety of flight at the stated level. When necessary to vary from the stated level, it will be the duty of the pilot to immediately communicate with ground stations, informing them of the condition encountered, and his intended action.

4. All airplanes approaching or departing from the Los Angeles area when weather conditions as seen from the cockpit are less than 3,000 feet ceiling and/or five miles visibility from the plane, or when flying on instru-

ments (which includes through broken clouds), shall maintain a course along the right hand side of the airway, or as otherwise provided herein, the airway to be considered as the beacon light course when visible and the radio beam where the beacons are not visible. (When doing contact flying, but in and out of broken clouds, planes must keep on the right hand side of the radio beam)—or as otherwise provided herein (see paragraph No. 6).

5. Planes letting down through an overcast at a Terminal field may fly directly on the on-course signal of the beam to facilitate locating the dead-spot. Planes departing from the terminal to pull up through an overcast must definitely keep off course on the right hand side, or as otherwise provided herein (see paragraph No. 6).

6. Planes shall not fly closer than ten miles to an airway when flying on the left hand side of the airway, except on airway between Fontana and Glendale; and on airway between Burbank and Saugus. At times when instrument flying is necessary in these areas, control tower will not allow two way traffic between above points.

7. When necessary for pilots to cut across an airway, the airway shall be crossed at an angle of *not less than forty-five degrees* at an altitude five hundred feet above the altitude being flown, in order to get on the right hand side of the airway as quickly as possible.

8. All pilots departing from the terminal are to check in with the control tower before taking off and to remain in contact with the control tower until at least five minutes from the airport, in order that the control tower may relay to the departing pilots last minute information as to the position of approaching planes, etc. At time of checking in with control tower pilot will advise flight plan to be used in departing from the airport area, i. e., route to be flown and altitude at which level flight will be maintained. If overcast condition prevails, he will state whether he will fly ground contact under the overcast, or whether he will pull up through, and in the latter case will advise where he expects to enter the overcast.

9. The control tower will be a clearing house for all information on incoming and outgoing planes of all airlines. If the control tower fails to give a pilot information regarding position of incoming planes on the airway he will depart over, the pilot should request this information from the radio control tower prior to taxying away from the loading ramp.

10. Pilots approaching the terminal will contact the airport control tower at least ten minutes out for landing instructions. When weather conditions require a landing down through an overcast at a Terminal, determination of which plane has the right of way to approach first will be made by the airport control tower. If pilot does not complete landing on first attempt he will contact his flight dispatcher for further instructions. If flight dispatcher okays another attempt, pilot shall contact control tower for clearance for next attempt.

11. Complete cooperation with the airport control tower is necessary, particularly in relaying information to planes on the operators' transmitter when the pilot is flying on a Commerce beam and cannot work the control tower direct, or when localizer beam is being used in continuous operation.

Specific Instructions for Operations in the Vicinity of Union Air Terminal, Burbank

1. All operating companies will equip their dispatch offices with interphone system between the control tower and all operators in the area. (This to be done at earliest date such equipment is made available by local communication companies.)

2. All radio contacts with control tower will be made on the opposite frequency from that in use by ground stations.

3. All pilots departing will obtain definite clearance from the control tower before departure as outlined above. This includes departures from outlying fields such as Saugus or Palmdale, and applies to regular schedules, test, special, or ferry trips.

4. If incoming planes using "coming down through" procedure on instruments are not closer than four minutes from Union Air Terminal, outbound planes may take off during local fog conditions. Such departing planes will fly in a westerly direction following west leg of Van Nuys range until they get on top of the fog.

5. Inbound planes when weather conditions are such that an instrument approach is required will give their estimated arrival time over starting point of their instrument approach procedure problem. When no instrument approach is contemplated, pilot will give estimated arrival time at Burbank (or Glendale). Any alterations of this plan or estimated arrival time must be reported to control tower immediately. These times will be given when over the following points:

(a) TWA—when passing Daggett or north-south leg of Daggett beam.
(b) WAE—southbound—when passing Daggett or north-south leg of Daggett beam.
WAE—northbound—when passing Oceanside.
(c) UAL—southbound—when passing Taft, or on Valley trips on departure from Bakersfield.
UAL—northbound—when passing Oceanside.
(d) AMA—when passing Palm Springs.
(e) PAA—when passing Palm Springs (or Oceanside when on alternate route). Ground stations to relay this information to control tower immediately, and at this time will be advised of other flights in the area, and preliminary advice as to probable arrival sequence of inbound planes.

6. All pilots approaching will receive OK from their own ground station before proceeding into the control area and before passing the following points, this approval having been relayed from the control tower:

(a) UAL—southbound—before passing Sandbergs—northbound—before passing Eddie Martin's Airport.
(b) WAE—southbound—before passing Palmdale or Fontana—northbound—before passing Eddie Martin's Airport.
(c) TWA—before passing Palmdale or Fontana.
(d) AMA—before passing south leg Fontana range or Palmdale.

After ships are released past above points by their respective ground stations, they will proceed to a point not less than ten minutes out from the control tower where they will shift to the opposite frequency and contact the control tower station, receiving further instructions from that source.

7. Pilot must notify control tower when passing cone of silence of Saugus when using this approach or when passing KBLA cone of silence, depending on approach method being used. In making instrument approach on the control tower localizer, the pilot may request continuous operation.

8. During this time any instructions which it is necessary for the control tower to broadcast will be relayed through the ground stations of the ship concerned. *Pilots to immediately notify control tower when underneath and continuous operation no longer required.*

9. All contact flying between Union Air Terminal and Grand Central Air Terminal will be done on the right hand side of the Southern Pacific Railroad tracks between these two points.

INTERNATIONAL REGULATION

C.I.T.E.J.A. MEETING AT BERN, SEPTEMBER, 1936*

The following countries were represented at the sessions of the C.I.T.E.J.A. held at Bern, Switzerland, from September 18 to 25, 1936: The United States of America, Germany, Belgium, Denmark, France, Great Britain, Hungary, Italy, Japan, the Netherlands, Poland, Rumania, Sweden, Switzerland, Czechoslovakia and Yugoslavia. The American delegation consisted of the following persons:

STEPHEN LATCHFORD, Member of the C.I.T.E.J.A.;
DENIS MULLIGAN, Member of the C.I.T.E.J.A.;
THOMAS EDWARD QUIGLEY, Technical Adviser;
JOHN J. IDE, Technical Assistant;
ARTHUR L. LEBEL, Secretary-Interpreter.

As it is possible that an air transport operator may be liable in a single accident under provisions imposing liability on him in several private air law conventions drafted by the C.I.T.E.J.A., the Third Commission of the C.I.T.E.J.A. has had under consideration the question whether it would be advisable to establish an aggregate limitation of liability for the aircraft operator.[1] The Third Commission of the C.I.T.E.J.A. met on September 18 for the purpose of considering the following report by Professor Ambrosini on the aggregate limitation of liability for the aircraft operator, C.I.T.E.J.A. Document No. 305:

Aside from any general consideration regarding the possibility or the advisability of establishing a system of aggregate limitation of liability for the aircraft operator, which matters were already discussed in the C.I.T.E.J.A. and to which we might possibly revert later, at the most appropriate time, your Reporter, in carrying out the decision reached by the Third Commission at the time of its meeting of February, 1936, has endeavored to prepare and to submit to you some suggestions on the different systems by means of which it might be possible to reach a solution of this difficult problem of aggregate limitation of liability.

Your Reporter believes it almost unnecessary to mention that complete and specific drafts are out of the question in this case, but that merely drafts of provisional texts intended to serve as bases for more specific discussion and a more definite direction toward reasonable solution of the problem, are involved.

That being the case, here are the different systems which you are requested to discuss:

First System

Making use of the proposal formulated by Mr. Riese, we might add to the draft of convention on collisions an article stating that the maximum indemnity to be paid by the operator for all the damages caused by the fact of the collision (damages to aircraft and the occupants thereof and damages to third parties on the surface) shall be single.

* Report furnished through the courtesy of Mr. Stephen Latchford, Member of the C.I.T.E.J.A. and Technical Assistant, Treaty Division, Department of State, Washington, D. C.

1. See 7 JOURNAL OF AIR LAW 390 (1936).

In this manner the decision reached by the C.I.T.E.J.A. which, at the request of the Reporter, has stated its position in favor of the duplication of the sum to be paid, would be modified, and the operator would have his burden made lighter.

In connection with this proposal, a few experts (Ingerslev, Riese) offered the suggestion that a lien be established, in this case, in favor of injured third parties on the surface. The effect of that lien would be that the injured parties, other than the third parties on the surface might run the risk of remaining empty-handed. This would not be equitable, particularly if the passengers of the negligent aircraft have, on account of the reservation contained in the draft on collisions, full damages under the terms of the Warsaw Convention.

It cannot be denied, however, that the situation of third parties on the surface, with respect to those who take part in air navigation deserves favorable consideration.

In case the Third Commission should decide to create a lien in favor of third parties on the surface, the article mentioned above might be worded as follows:

> "(1) The maximum aggregate liability which the operator may incur as the result of a collision, for all damages provided for in this Convention, including damages to third parties on the surface, shall be that provided for in Article 4.
>
> "(2) However, the claims of third parties on the surface shall be secured by a lien, and the settlement of other claims under the terms of Article 4 (3) may be made only from the amount not distributed to creditors lienholders.
>
> "(3) The lien mentioned in the preceding paragraph shall be extinguished six years after the date of the accident."

It is to be noted that, should the C.I.T.E.J.A. adopt this system, it would be necessary to touch up the Rome Convention. As a matter of fact, Article 6 of that Convention should then be construed and made to harmonize with the provisions of the convention on collisions.

This first system might be completed by a modification in the draft of Convention on Assistance and Salvage.

The discussions that took place recently in Paris, in the Third Commission, emphasize the fact that this is the draft of convention which might cause the operator to incur the greatest liability.

That is the reason why Mr. Riese and Mr. de Vos have proposed studying the possibility of applying the principle of aggregate limitation to this draft of convention.

In Mr. Ripert's last Report (document No. 303—July, 1936), this subject is not mentioned.

In the belief that it is incumbent upon your Reporter to make suggestions in this matter, I shall be able to take the liberty of proposing the introduction into the draft of Convention of Assistance and Salvage, a provision identical with that of the Rome Convention, reproduced in the draft on collisions, that is, the liability of the operator to be limited between 600,000 and 200,000 French francs.

The acceptance of such a suggestion would have a dual result:

First, it would introduce into the Ripert draft of convention the concept of a sure, maximum limitation, and accordingly, still further to lighten the liability of the operator; then, it would bring about uniformity in the criterion governing maximum limitation in all the conventions. Indeed, the same criterion would be found in the Rome Convention, in the draft on collisions and in that of assistance and salvage.

At this point, your Reporter believes it advisable to point out that, in his view, the same principle of aggregate limitation should apply to the liability flowing from the Warsaw Convention. Once we engage in this path, there is no reason why the latter convention should be the only one to be excluded from the application of the principle of maximum limitation

of liability, a principle which should be considered as a general one for aeronautical liability.

With such a system, each convention would involve a maximum limitation of liability that would be certain and definite, and the aggregate liability, also well defined, which the aircraft operator would incur, would be the total sum of all these limited liabilities.

Desirous of making another step forward and of obtaining a result which would be simpler, more logical, and more favorable to the operator, your Reporter wishes to propose another system.

Second System

A very simple and logical system might be the following one:

Have the coming Fourth Conference approve a protocol containing an article worded as follows:

> "In international air navigation, the aerial operator (or the carrier) who is liable under the law of conventions now in force, shall be liable for each accident, to all interested parties and claimants, to the maximum extent of 250 French francs per kilogram of weight of the aircraft ..... (to be completed according to the article of the Rome Convention and Article 4 (2) of the Convention on Collisions)."

This article of an altogether general character, would result in reducing to a minimum the liability of the aircraft operator, in view of the fact that, even in cases of simultaneous damages the liability for which is governed by the different conventions, there would no longer be an accumulation of the different limited liabilities, and the operator would have to pay only a sum included within the limits of 600,000 and 200,000 French francs.

It is understood that all the systems proposed by your Reporter involve the exception that if the operator can be charged with gross negligence or fraud, he can no longer invoke the limitation and must be absolutely liable. In addition, the system selected must be completed, particularly with reference to the participation of the different claims in the maximum indemnity to be paid by the operator.

A. AMBROSINI,
Reporter, Third Commission.

Rome, August 2, 1936.

The C.I.T.E.J.A. met in plenary session on September 22 for the purpose of taking final action on two draft international conventions, one relating to assistance and salvage of aircraft or by aircraft at sea, and the other to aerial collisions. These two draft conventions had been adopted provisionally by the C.I.T.E.J.A. at its tenth plenary session held at The Hague in September, 1935,[2] and the following reports thereon, known as C.I.T.E.J.A. Documents 303 and 306, respectively, had been prepared by the C.I.T.E.J.A. reporters for consideration at the Bern meeting:

Report Concerning the Draft of Convention for the Unification of Certain Rules Relating to Assistance and Salvage of Aircraft and by Aircraft at Sea, Document No. 303

In 1934, at Berlin, the Ninth Session of the C.I.T.E.J.A. adopted a preliminary draft of convention on assistance and salvage of aircraft or by aircraft. It had been agreed that a second reading of this draft would be made at the Tenth Session.

At its Session of The Hague, in 1935, the C.I.T.E.J.A. again examined the draft submitted by your Reporter. It accepted the text which was

2. See 7 JOURNAL OF AIR LAW 121 (1936) for text of the draft conventions.

published in the minutes of this session (Annex H, page 214). While such acceptance had been considered as exhausting discussion on the subject involved, the Committee decided that it would not immediately retransmit to the French Government the text which it had just adopted, and that it would wait until its Eleventh Meeting for that purpose. The study of this convention to be made by the C.I.T.E.J.A. in its Bern Session will therefore be a final examination, it being understood that discussions of substance will not be resumed and that only the form of the preliminary draft will be subject to slight modifications.

Your Reporter will therefore confine himself to an explanation of the changes which were made in the original preliminary draft at The Hague.

The draft is now limited, as indicated by the title, to assistance and salvage which occurs at sea, whether this assistance is rendered to an aircraft or by an aircraft. This restriction was made in order to induce more speedy adoption of the draft. The problem of assistance for aircraft in distress on land raises rather serious difficulties; the determination of the exact scope of the obligation, in particular, raised heated discussions. Furthermore, the general laws of the different countries are not uniform on this point: whereas in certain countries, such as Italy, a general obligation of assistance is already recognized in all persons, in other countries, such as France, this obligation appears only in the preliminary draft of revision of the penal laws, and in other countries still, there is not even any question of introducing this obligation in the legislation. It appeared difficult to make an innovation by an international provision concerning air navigation.

That does not mean that the question of assistance on land has been abandoned. On the contrary, the Committee decided to go ahead with the study thereof, but this subject will probably not be settled as quickly as will the matter of assistance at sea. On the latter point, there is a valuable precedent in the Brussels Maritime Convention of 1912. There will undoubtedly be progress if we succeed in insuring assistance at sea, and this first convention can in no way hamper the adoption of a second one, if an agreement is reached later concerning assistance on land.

The changes made at The Hague session are the following:

1. Wherever the original text referred to the *owner* of the ship, it appeared preferable to mention the outfitter with the owner (Article 2, §5 and Article 7, §3). In a general manner, an attempt was made in the convention to reserve all the rules of the maritime law. Thus, in Article 7, §3, it is stated that the recourse of the owner or outfitter of the ship against the shipper shall remain subject to maritime rules and Article 3, §4, points out that this owner or outfitter will never be liable beyond the limits fixed by laws and conventions in force concerning his liability. Such reservations will give shipowners all the security, as no attempt is made by an air convention to restrict their rights or increase their obligations. In this manner, the proper distinction is made between the jurisdicition of the C.I.T.E.J.A. and that of the diplomatic conferences for the unification of maritime law.

2. The determination of the obligation of assistance raises a great deal of difficulty in connection with its scope. It is much more a theoretical feature than a practical one; actually, it is certain that such an obligation will be executed voluntarily and that anyone not wishing to execute it will readily find a reason not to do so. It has seemed better, however, precisely in order better to insure the execution of this obligation, to bring it down to reasonable limits; that is why Article 2, §3, states that the obligation of assistance shall exist only if the aircraft or ship is in the course of a voyage or ready to start. This provision will prevent the possibility of attaching any blame upon the owner of an aircraft that might be reached by a call for assistance, if he does not try to lend such assistance, when the aircraft is at a stop and not in voyage.

3. On the other hand, it was deemed that such a limited obligation to assist might appropriately be accompanied by a sanction. The maritime convention of Brussels, 1912, on assistance and salvage at sea, refers to the national legislations for the penalties to be imposed in connection with the obligation which it sets forth. So far as we know, no case has ever arisen,

either in France or abroad, where the obligation has been violated and where the penalty had to be applied. But we might well wonder if the reason why the obligation is respected is not precisely the existence of the penalty. Under these conditions, it appeared necessary to insert in the convention on assistance of aircraft, a text somewhat similar to that which appears in the Brussels Convention. We therefore propose the following draft for Article 2, §5:

(5) "The national legislations shall determine the penalty to be imposed in order to insure the execution of this obligation."

The present §5 would then become §6.

4. Article 4, §2, covers the case where there has been salvage of both persons and property. It states that in such a case an equitable distribution of the indemnity between all salvors is to be made, in order that those who save persons may obtain a part of the indemnity granted to the salvors of property. This provision is not a new one, but the text has been changed in such a way as to make it as clear as possible.

5. Article 7 makes the remuneration payable by the operator of the aircraft or by the owner or outfitter of the ship. The Committee decided that this Article should state the principle of the possibility of recourse by the person who was obliged to pay the indemnity against the owners of merchandise. If the indemnity was paid by the ship, it shall be classified as general average, and the maritime rules will apply to such general average. If the operator of the aircraft has paid the indemnity, he will have a recourse against the owners of merchandise for that part of the remuneration which was paid by him in connection with the merchandise. The text of Article 7, § 2, is extremely cautious; it does not decide the question as to whether the owners of merchandise saved will be the only ones against whom this recourse will be had under the application of the principle of unjust enrichment or, on the contrary, if the owners of merchandise voluntarily sacrificed must also contribute in a settlement by general average. The C.I.T.E.J.A. has placed this question of general average in air navigation under study. The text in no way affects the solution which would be given to this difficulty.

6. Finally, it is necessary to point out the new provision of Article 11, §2. which was taken from the Rome Convention. concerning the case where several salvors should bring proceedings before different jurisdictions. The text states the principles that each such jurisdiction must execute a statement of the aggregate claims in order that the limits of liability may not be exceeded.

Although these charges were discussed at length at The Hague, it can be seen that they are little important. The principles are established today. Subject to a final revision which will apply to the drafting of the articles of this convention, we propose that the Committee definitely adopt the latter and send it to the French Government, in order that it may be submitted before the international conference.

GEORGES RIPERT,
Reporter.

Paris, July 15, 1936.

Report on the Preliminary Draft of Convention on Aerial Collisions, Document No. 306

This draft of convention comes before the C.I.T.E.J.A. for the third time and may be considered as final. It is now ready.

There is no doubt that the changes made in this draft at the Session of September, 1935, at The Hague, have considerably improved many of its provisions. This is particularly true of Article 4 which was drafted in a more simple and more logical manner than the former Article 4 as this had been approved after the first meeting, at the Berlin Session, in 1934.

The text which is submitted to you hereinafter is that which was approved at The Hague. It involves only two additional paragraphs that were discussed by the C.I.T.E.J.A., and the drafting of which was entrusted to the Reporter.

The first of these is paragraph 3 of Article 2, the purpose of which it is to specify that damages caused by an aircraft in motion to an aircraft on the surface are not covered by the Convention on Collisions but by the Rome Convention; the second addition is paragraph 3 of Article 3, which covers the case of illegitimate use of an aircraft (Schwarzfahrt) and repeats Article 5 of the Rome Convention.

In the opinion of your Reporter, this draft of convention, in itself, calls for no further comments.

There is, however, something to be said with respect to its possible connection with the discussions on the aggregate limitation of liability:

If, by any chance, this principle of aggregate limitation should be accepted by the C.I.T.E.J.A., and if the system adopted were based upon Mr. Riese's proposal (document No. 296, February, 1936), this draft of convention should be completed by an article stating that the liability which an operator may incur is single (composed of a single amount provided for in Article 4) for all damages arising out of the collision, including damages to third parties on the surface (see the Report on the limitation of liability, of this date).

Text of the two new paragraphs proposed:

In Article 2—

(3) If the aircraft collided with is not in motion but is stationary on the surface, the payment of damages caused to this aircraft shall be governed by the provisions on liability toward third parties on the surface.

In Article 3—

(3) Any person who, without the right to use an aircraft, does use it without the consent of the operator, shall be liable for the damage caused, and the operator who has not taken the necessary precautions to prevent the illegitimate use of his aircraft, shall be liable jointly and severally with him, each one of them held liable under the conditions and within the limits of this Convention.

Rome, August 2, 1936.

A. AMBROSINI,
Reporter.

Full information in regard to the action taken by the Third Commission and at the plenary session of the C.I.T.E.J.A. will appear in the report to be submitted by the members of the American delegation.

The two draft conventions relating to assistance and salvage of aircraft or by aircraft at sea, and to aerial collisions, as adopted by the C.I.T.E.J.A. at Bern, will, in accordance with the rules of the C.I.T.E.J.A. be referred for adoption and signature to the Fourth International Conference on Private Aerial Law, which will be a diplomatic conference composed of officially accredited delegates appointed by the interested Governments. No date has yet been set for this conference.

AMENDMENT TO AVIATION LAW OF JAPAN

According to a despatch from the American Embassy at Tokyo, the Japanese Diet, by Act of May 28, 1936 (Law No. 34), amended the Civil Aviation Law of Japan, Article 35 (Law No. 54, promulgated April 8, 1921)[1]

1. See 6 JOURNAL OF AIR LAW 445 (1935).

by inserting, after the clause "between any places within Japan," the words "or between a place outside Japan and a place within Japan." Article 35, as amended, is therefore as follows:

> "Flying machines other than those of Japan shall not be used for the aerial transportation of passengers or goods with charge between any places within Japan *or between a place outside Japan and a place within Japan* unless the approval of the administrative authorities concerned is obtained therefor."

The effect of the amendment is to place the Japanese law on virtually the same footing as that of the United States and that of other nations, viz., that no foreign aircraft may enter the country without the consent of the domestic government, given either by a convention in general terms or by specific consent given in the particular case.

BELGIUM RATIFIES WARSAW CONVENTION[1]

By a note dated September 22, 1936, the Polish Ambassador at Washington informed the Secretary of State that the instrument of ratification by Belgium of the convention for the unification of certain rules relating to international transportation by air, and additional protocol, signed at Warsaw, October 12, 1929, was deposited with the Polish Government on July 13, 1936. The ratification will become effective 90 days after the date of the deposit of the instrument of ratification.

CANADIAN AIR TRANSPORT REGULATION

On August 24th, 1936, the Canadian Department of National Defense, Civil Aviation Branch, issued the following information to commercial aircraft operators, airport owners, inspectors and stations in regard to Scheduled Air Transport Service:

OTTAWA, 24th August, 1936.

FROM: *Controller of Civil Aviation.*
SUBJECT: *Scheduled Air Transport Service.*

1. Air Regulations, 1920, were amended on the 30th of May, 1936, so that in future no commercial aircraft shall be operated on any international or interurban scheduled air transport service unless the said service has been licensed by the Minister of National Defense.

2. The conditions under which such a license shall be issued have not yet been fully laid down, but operators intending to apply for a license for a scheduled air transport service, either interurban or international, should be guided in general by the following minimum requirements:

Terminal airports and intermediate fields at intervals not exceeding fifty miles must be licensed.

Night flying routes must be adequately lighted.

Weather reports covering the routes must be available.

Ground communications along the routes must be available.

Aircraft used must be of an approved type, and there must be sufficient spare aircraft to ensure regular service.

Multi-engine aircraft shall be capable of continuing flight with one engine out of commission at a height sufficient to clear all obstructions by

1. From Department of State *Treaty Information*, Bulletin No. 84, September, 1936.

at least five hundred feet in visual or contact flying, and one thousand feet in instrument or overtop flying.

Such multi-engine aircraft must be capable of continuing the take-off with authorized load in the event of engine failure of one engine during take-off.

Single-engine aircraft may only be used for passenger carrying by day, except under authority of certain waivers.

Single-engine aircraft may not be flown over water except within gliding distance of land.

Multi-engine aircraft over water more than fifty miles from shore must have approved flotation gear.

Certain instruments for scheduled air transport service must be incorporated in all aircraft

First pilots must hold a Public Transport Pilot's Certificate.

Aircraft must carry sufficient oil and fuel to fly forty-five minutes in addition to the time required for the flight to the next scheduled stop, above and beyond that required by abnormal wind and weather conditions.

Aircraft may not be flown within five hundred feet of the ground, except during landings and take-offs.

Intentional instrument flying is not to be carried out unless the ceiling is at least 500 feet and the aircraft is fitted with serviceable radio equipment capable of—

(1) maintaining two-way communication with the ground and

(2) receiving radio range beacon signals if ground stations are installed and/or obtaining D. F. bearings from the aircraft on suitable broadcasting stations operating during scheduled flight.

3. This notice is merely issued as a warning so that operators may not be misled into obtaining unsuitable equipment before the complete details are published covering the requirements for scheduled air transport services in Canada.

J. A. WILSON,
Controller of Civil Aviation.

ECUADOR RATIFIES PAN AMERICAN CONVENTION AND CONVENTION ON TRANSIT OF AIRPLANES[2]

With a note dated September 2, 1936, the Cuban Ambassador at Washington transmitted to the Secretary of State a communication from the Secretary of State of Cuba informing this Government that, under date of August 15, 1936, there was deposited in the Department of State of Cuba, the instrument of ratification by Ecuador of the convention on commercial aviation, signed at the Sixth International Conference of American States, Habana, February 20, 1928.

According to a despatch dated August 17, 1936, from the American Legation at Quito, the Government of Ecuador also ratified on June 10, 1936, the convention on the transit of airplanes, signed at the Pan American Commercial Conference, Buenos Aires, June 19, 1935.

2. From Department of State *Treaty Information*, Bulletin No. 84, September, 1936.

FOREIGN JURISPRUDENCE

WESTMINSTER BANK, LIMITED v. IMPERIAL AIRWAYS, LIMITED*

MR. JUSTICE LEWIS: In this case the Plaintiffs, the Westminster Bank, Ltd., sue the defendants, the Imperial Airways, Ltd., in respect of the loss of three bars of gold which were consigned to the defendants for carriage from London to Paris on 5th March, 1935. The plaintiffs by their Points of Claim allege that these three bars of gold were delivered to the defendants to be kept safely and carried by them for reward upon the terms of a consignment note dated 5th March, 1935. The value of the goods is admitted to be £9138. 13. 6d. The Points of Claim further allege that it was the duty of the defendants in accordance with the contract contained in or evidenced by the said consignment note, or alternatively as common carriers, to keep the goods safely and to carry them to Paris, and that the defendants have wholly failed to deliver the said goods at Paris whereby the Plaintiffs have lost the value of the said goods. Alternatively the plaintiffs say that the contract contained in the consignment note was subject to the Carriage by Air Act, 1932, and that by the terms of that Act it was incumbent upon the defendants to set out in their consignment note a statement that the carriage of the three bars of gold was subject to the rules relating to liability established by the Warsaw Convention set out in the First Schedule to the Act. The plaintiffs say that the consignment note contained no such statement, and that in the premises the defendants are liable for the loss of the said goods. In the further alternative the plaintiffs contend that the defendants were negligent in the custody and care of the said goods by reason whereof the said goods were on or about 5th March, 1935, stolen from the defendant's premises at Croydon Aerodrome with a resultant loss to the plaintiffs. In the further alternative the plaintiffs rely upon Articles 18(1) and (2) and (25) of Chapter 3 of the First Schedule to the said Act and say that the loss of the goods was caused by the wilful misconduct of the defendants or by such default which by English law is consistent with wilful misconduct.

The defendants by their Points of Defense deny that they were common carriers and allege that by the said consignment note the contract therein contained, namely the contract of carriage, was expressed to be subject to the General Conditions of Carriage of Goods therein referred to and con-

* Judgment in the High Court of Justice, King's Bench Division (Commercial List); Royal Courts of Justice, before Mr. Justice Lewis. Decided June 29th, 1936.

Transcript from the shorthand notes of Hibbit & Sanders, 10 King's Bench Walk, Temple, E. C. 4; and Walsh & Sons, 4 New Court, Carey Street, W. C. 2.

Mr. H. U. Willink, K. C. and Mr. W. L. McNair (instructed by Messrs. William A. Crump & Son) appeared for the Plaintiffs.

Mr. A. T. Miller, K. C. and Mr. H. G. Robertson (instructed by Messrs. Beaumont & Son) appeared for the Defendants.

Copy of this judgment furnished through the courtesy of Dr. A. W . Brown, one of the representatives of Great Britain on the C.I.T.E.J.A., Mr. Stephen Latchford, Technical Assistant, Treaty Division, Department of State, Washington, D. C.

On behalf of Imperial Airways Ltd. an Appeal has been lodged against this Judgment.

tend that the said General Conditions provided amongst other things that the defendants are not liable for the loss of goods if they prove that they or their agents have taken all necessary measures to avoid the damage, or that it was impossible for them to take such measures, and that the liability of the defendants, if any, is limited to the sum of 250 French francs per kilogram. They contend that the contract is subject to the Carriage by Air Act 1932 and plead that by the Convention set out in the First Schedule to the Act, the carrier is not liable if he proves that he and his agents have taken all necessary measures to prevent such damage or that it was impossible for him or them to take such measures, and in the carriage of goods the liability of the carrier is limited to a sum of 250 French francs per kilogram. They admit that on the night of the 5th/6th March, 1935, the said goods were stolen from a strong room in a building at the Croydon Airport known as the Administration Block. The defendants then proceed to set out certain facts to show that they took all necessary measures to prevent the loss of the said goods or that it was impossible for them to take such measures.

In reply the plaintiffs allege that a special declaration was made of the value of the said goods at the time of the delivery of the said goods to the defendants and a supplementary payment made, which facts the plaintiffs contend deprive the defendants of the limitation of liability contained in Article 20 paragraph (2) (1) of the General Conditions and renders the defendants liable to pay a sum not exceeding the declared value unless it is proved by the defendants that the sum is greater than the actual value to the consignor at the time of the delivery. The plaintiffs further allege that in view of the fact that a special declaration and a supplementary payment were made the defendants were liable under the provisions of Article 22 (2) of the Schedule to the Carriage by Air Act 1932. The matter comes before me by reason of an Order made by Mr. Justice Mackinnon on 25th March, 1936, by which it was ordered that the following questions arising in the action should be tried by way of preliminary issues before the other questions arising in the action. The questions contained in Mr. Justice Mackinnon's Order were—(1) Whether the consignment note referred to in the pleadings satisfies the requirements of Article 8 (q) of the Convention set out in the Carriage by Air Act 1932?

(2) If not, whether the defendants are liable to the plaintiffs under the said Act and Schedule?

(3) If the consignment note does satisfy the requirements of Article 8 (q) of the Convention whether the defendants' liability is limited to 250 francs per kilogram?

Before the matter came before me it was agreed between the Solicitors for the plaintiffs and the defendants that the following further issue should be tried by me, namely—

(4) Whether there was within the meaning of Article 22 (2) of the First Schedule of the Carriage by Air Act 1932 a special declaration of value and a supplementary payment made as alleged in the Reply, and, if so, what is the effect thereof in law?

When the matter came before me it was agreed that the second question contained in Mr. Justice Mackinnon's Order should be varied to read—

"If not, whether the defendants have any defense to the plaintiffs' claim?" And I was also asked by consent to consider the question: "As to what the measure of damages, if any, was applicable in this case?"

On the 12th October, 1929, there was signed at Warsaw on behalf of His Majesty's Government, a Convention for the unification of certain rules relating to international carriage. In 1931 the International Air Traffic Association, of which Association the defendants in this case were members, agreed on General Conditions. In 1932 on 12th July, the Carriage by Air Act was passed which enacted that the provisions of the aforesaid Convention which are set out in the First Schedule to the Act should come into force, and have the force of law in the United Kingdom in relation to the carriage by air to which the Convention applied. For the purposes of this case the effect of the Carriage by Air Act 1932 is to give the force of law to the Warsaw Convention to the contract in question in this case, which was a contract for international carriage. It is necessary to refer to certain Articles of the Convention which forms the First Schedule to the Carriage by Air Act, 1932. Article 1(2) defines "international carriage." I need not refer further to it as it is conceded that in this case the carriage was international carriage. Article 3 which relates to passenger tickets contains in 1 (e) an enactment that the passenger ticket shall contain the following particulars, namely, that the carriage is subject to the rules relating to liability established by this convention.

By Article 4 (3) (h) a similar enactment is made with regard to the luggage ticket.

Article 5, which is the first Article of Section 3 of the Schedule and is headed "Air Consignment Note" reads as follows:

"(1) Every carrier of goods has the right to require the consignor to make out and hand over to him a document called an 'Air Consignment Note'; every consignor has the right to require the carrier to accept this document.

(2) The absence, irregularity or loss of this document does not affect the existence or the validity of the contract of carriage which shall, subject to the provisions of Article 9, be none the less governed by the rules of this Convention."

Article 8 is as follows:

"The air consignment note shall contain the following particulars."

There then follow certain particulars which are to be contained in the consignment note lettered from (a) to (q). (q) reads:

"A statement that the carriage is subject to the rules relating to liability established by this Convention."

This latter provision corresponds to the provision laid down with regard to the passenger ticket and the luggage ticket.

Article 9 reads:

"If the carrier accepts goods without an air consignment note having been made out or if the air consignment note does not contain all the particulars set out in Article 8 (a) to (i) inclusive and (q), the carrier shall not be entitled to avail himself of the provisions of this Convention which exclude or limit his liability."

In Chapter 3 of the Schedule the liability of the carrier is dealt with. By Article 18 it is enacted as follows:

"(1) The carrier is liable for damage sustained in the event of the destruction or loss of or damage to any registered luggage or any goods if the occurrence which caused the damage so sustained took place during the carriage by air.

(2) The carriage by air within the meaning of the preceding paragraph comprises the period during which the luggage or goods are in charge of the carrier, whether in an aerodrome or on board an aircraft, or in the case of a landing outside an aerodrome, in any place whatsoever."

It was suggested at one time by Mr. Miller, who appeared for the defendants, that the damage sustained by the Plaintiffs in this case did not take place during the carriage by air. This point was but faintly argued and in view of the fact that by their Points of Defense the defendants admit that the goods were stolen from a strong room in a building at Croydon Airport and that when so stolen they were in charge of the defendants, it seems to me impossible successfully to contend that at the time when the loss was sustained the carriage by air had not begun.

By Article 20 it is provided as follows:

"(1) The carrier is not liable if he proves that he and his agents have taken all necessary measures to avoid the damage or that it was impossible for him or them to take such measures."

Article 22 (2) provides:

"In the carriage of registered luggage and of goods the liability of the carrier is limited to a sum of 250 francs per kilogram, unless the consignor has made at the time when the package was handed over to the carrier, a special declaration of the value at delivery and has paid a supplementary sum if the case so requires. In that case the carrier will be liable to pay a sum not exceeding the declared sum, unless he proves that that sum is greater than the actual value to the consignor at delivery."

Article 23 provides:

"Any provision intending to relieve the carrier of liability or to fix a lower limit than is laid down in this Convention shall be null and void, but the nullity of any such provision does not involve the nullity of the whole contract, which shall remain subject to the provisions of this Convention."

Article 25 provides:

"The carrier shall not be entitled to avail himself of the provisions of this Convention which exclude or limit his liability if the damage is caused by his wilful misconduct or by such default on his part as, in accordance with the law of the Court seized of the case, is considered to be equivalent to wilful misconduct."

In Chapter 5 of the Schedule under the heading "General and Final Provisions" there appears Article 33 which reads as follows:

"Nothing contained in this Convention shall prevent the carrier either from refusing to enter into any contract of carriage or from making regulations which do not conflict with the provisions of this Convention."

The effect of the Articles above mentioned is, in my opinion, prima facie, to render the carrier, the defendants in this case, liable for any loss of goods caused or occasioned during carriage by air. The carrier, how-

ever, is entitled to escape that liability if he can satisfy the provisions of Article 20 (1). By Article 22 there is a further limitation upon the liability of the carrier in so far as amount is concerned, namely, that in the case of the carriage of goods the carrier's liability is limited to the sum of 250 francs per kilogram. This limitation of liability by the carrier can, however, be avoided if the consignor makes the special declaration and pays the supplementary sum referred to in that Article. In no way can the carrier limit his liability further (see Article 23). Articles 20 and 22 are, in my opinion, Articles which exclude or limit the liability of the carrier and in order to enable the carrier to so exclude or limit his liability he must comply with Article 8 (a) to (i) inclusive and (q) (see Article 9). The position, therefore, in my opinion, is this—that if the carrier has not complied with Article 8 (a) to (i) inclusive and (q), Article 18 defines the liability of the carrier and the carrier cannot take advantage of any of the exclusions or limitations of his liability, for example, those set out in Article 20 and Article 22. The first question, therefore, which I have to answer depends upon whether or not the defendants in this case complied with the terms of Article 8 of the Schedule.

The only reference which appears on the consignment note to the Convention, which, as I have said, appears as the First Schedule to the Carriage by Air Act, 1932, is a statement on the back of the consignment note to this effect: "Carriage by Air: The General Conditions of Carriage of Goods are applicable to both internal and international carriage. These General Conditions are based upon the Convention of Warsaw of 12th October, 1929, in so far as concerns international carriage within the special meaning of the said Convention." It was contended by the plaintiffs that this reference is not a compliance with Article 8 of the Schedule of the Carriage by Air Act 1932 which enacts that the air consignment note shall contain the following particulars—"(q) A statement that the carriage is subject to the rules relating to liability established by this Convention." In my opinion, a statement that the carriage is subject to certain general conditions of carriage of goods which general conditions are based upon the Convention is not a statement that the carriage is subject to the rules relating to liability established by the Convention. In my opinion it is impossible to interpret the statement on the consignment note as being a statement that the carriage is subject to the rules relating to liability established by the Convention. To say that certain conditions are applicable to the carriage which said conditions are based upon the Convention is, in my opinion, a very different matter than saying that the Convention governs the carriage. Mr. Miller for the defendants argued that the statement on the consignment note was a sufficient compliance with the Act and based his argument in support of this contention upon three matters namely, (1) that the consignment note was a business document and should therefore be construed liberally and in a commercial sense; (2) that both the parties to the contract knew the law; and (3) that the consignment note was applicable both to internal and international carriage. I am unable to accede to any of these arguments. The direction given in the Schedule is a statutory obligation imposed upon the carrier to incorporate in his consignment note a perfectly simple statement namely, "that the carriage is subject to the rules relating to liability estab-

lished by this Convention," and I am unable, in spite of the arguments of Mr. Miller, to hold that the statement on the back of the consignment note is a compliance with that statutory obligation. The General Conditions of carriage of goods referred to in the consignment note are contained in a paper-covered book entitled: "Agreement concerning the contract of Carriage by Air," and I was informed and I accept it as a fact, that these General Conditions of carriage of passengers and baggage are posted up at the offices of the Imperial Airways. It is to be observed that in those General Conditions of Carriage there appears the following "Chapter 2 Article 4 (5). So far as concerns international carriage, as defined by Article 1 paragraph 2, the air consignment note shall contain in addition the following particulars inserted by the carrier: (b) a statement that the carriage is subject to the rules relating to liability set out in the Convention of Warsaw of 12th October, 1929, and upon which these conditions are based." Those responsible for the preparation of the consignment note instead of having a plain statement in accordance with the Act printed on the consignment note have chosen to set out that the carriage is subject, not to the rules established by the Convention, but to certain conditions which it is alleged are based on those rules.

In my view, therefore, the answer to the first question is that the consignment note does not satisfy the requirements of Article 8 (q) of the Convention.[1]

It was stated by counsel on both sides that if the answer to the first question was in the negative the other questions really did not arise, but I propose quite shortly to deal with those other questions in their order.

The second question as varied is: "If not, whether the defendants have any defense to the plaintiffs' claim?" I am of opinion that they have not and that the measure of damages applicable to the case is the value to the plaintiffs of the bars of gold which value it is agreed was £9,138. 13. 6d. In view of my answer to question 1, question 3 does not arise.

With regard to question 4, in view of my answer to question 1 this does not arise, but I heard considerable argument with regard to the meaning of a special declaration of value and a supplementary payment. Undoubtedly the plaintiffs made a declaration of the value of the goods. On the consignment note there appears under the column headed "Quality and nature of goods," "Bar Gold £9,000," and under the column headed: "Value for Customs" the same sterling figure appears. There is in the consignment note a space for the insertion of a figure for the value for insurance. The space is labelled "Special declaration of value for insurance by the carrier." That space was not filled in. Adjacent to that space there is another space labelled "Special declaration of value at delivery." That space was blacked out and evidence was called before me to the effect that Imperial Airways refused to accept any special declaration of value at delivery. The instructions to the traffic staff issued by the Imperial Airways contain the following: "Declaration of value. (a) For insurance. (b) At delivery. As with the baggage check consignments will not be accepted for carriage if

1. Since the loss of the consignment in question, the form of the I.A.T.A. Consignment Note has been altered. The amended form follows the exact wording prescribed by Article 8 (q) of the Convention of Warsaw, and therefore disposes of the difficulty referred to in this judgment.

this latter space is completed." It seems to me therefore clear that not only was no special declaration of value at delivery made, but that if in fact such a special declaration had been made, the consignment in this case would not have been accepted. I do not think it is necessary for me to inquire as to the effect of the carrier's refusal to accept such a special declaration. Suffice it to say that no special declaration was in fact made. Nor do I think that even if a special declaration was made that any supplementary payment was made by the consignor. Imperial Airways carry at certain rates. There is what I may term the ordinary rate for general merchandise; there is also a rate applicable at the Company's option to furs, skins, other valuable goods, works of art, etc. These rates are ad valorem rates. Similarly there are ad valorem rates for the carriage of gold bullion and specie, and Imperial Airways announce that special rates can be had on application for the carriage of bullion for destinations in Europe. The goods in question in this case were bars of gold and in order to assess the amount to be paid it was necessary, as the rate was an ad valorem rate, to insert the value of the gold which accounts, in my opinion, for the insertion of the words "Value £9,000" in the column headed: "Quality and nature of goods." Undoubtedly as the goods in question were bullion a higher rate was paid than the rate for ordinary merchandise, but I do not think that a supplementary payment was made. In my opinion the word "supplementary" implies some payment in addition to the ordinary rate at which the goods in question are carried. Here the only rate at which bullion is carried is the ad valorem rate which in fact was paid. What was in fact paid was a rate which was the usual rate for the carriage of bullion, but which was a higher rate than that for ordinary merchandise, and I am unable to accede to the argument that because this rate was a rate higher than the rate for ordinary merchandise that the payment of that rate was a supplementary payment.

The costs of these proceedings must be paid by the Defendants to the Plaintiffs.

(*Then followed a discussion between the Judge and Counsel as to the exact effect of the Judgment, and as to costs.*)

NOTES, COMMENTS, DIGESTS

COMMENTS

Trespass—Servitude—Flight of Aircraft—Rights of Landowner and Aviator.—[Federal] The aviator is gradually winning his freedom of the air. Foreclosed by centuries of judicial dicta favoring the landowner's dominion over the indefinite air space, aviation's place in the sun from its inception was literally under a cloud. Needless to say, the progress of air navigation has been in no way impeded by this pretentious claim of the surface owner. The flyer has taken to the air, and seldom has been the case where the surface owner has sought to hinder his freedom of flight by legal action or otherwise. Nevertheless, the cloud has continued to hang, and perhaps still hangs in places at least, over the airman's full freedom of flight. It has awaited the light of litigation in apt cases to remove it. A few more such cases as were recently decided by the Circuit Court of Appeals of the Ninth Circuit, however, and the aviator will fly the heavens in his own right.

Plaintiffs owned land adjacent to an airport used by defendants' aircraft. They alleged numerous and repeated flights against their protests over definite parts of their land at heights ranging from five feet to 175 feet above the surface. No specific damages as a result of such flights were alleged, but general damages for the trespasses committed by such flights were claimed in the sum of $90,000. Plaintiffs further sought an injunction in order to prevent the imposition of servitudes upon their premises by the continuance of such flights. *Held:* Dismissal of their bills by the District Court affirmed by the Circuit Court of Appeals. *Hinman* v. *Pacific Air Transport; same* v. *U. S. Airlines Transport Corp.*, 84 F. (2d) 755 (C. C. A. 9th, 1936).

The court decided:

1) Flying above the surface of land against its owner's consent is not a trespass, but is lawful unless it results in injury to the owner in the use of his land.

2) It is impossible to impose a servitude upon land by flying over it, however repeated and continuous such flights may be. The air space is not subject to ownership except as the owner of the surface beneath may subject it to use as an incident of the use of the surface, and until that time and only for the time it is so used, the air space is open to the world for purposes of air navigation.

3) The plaintiffs not having alleged any injury as the result of defendants' craft flying over their land, they were entitled neither to damages nor an injunction.

The court reached its conclusions through the simplest processes. In the first place, it limited the problem before it to *aviation;* and secondly, it did not become involved in the dissensions growing out of the several theories

of liability which have been developed for protecting the landowner's interest against the hazards of aviation.[1]

The importance of limiting the decision to aviation should be emphasized. The ownership of land is one of the most important interests known to civilized society. In all of its forms it is given a maximum of protection by government. All of the older cases involving invasion of a landed interest by intrusion into the air space above the land arose out of situations where one landowner, usually an adjacent one, sought to make use of air space over another's land either by some relatively permanent structure close to earth,[2] or through some activity which interfered with or jeopardized the use and enjoyment of the surface beneath.[3] As against such invasions of the air space the owner or possessor of the land beneath has always been protected, but as against the navigator of such space the landowner has not been given protection unless he could show injury to the use or possession of his premises.[4]

The basis for this sharp distinction between the aviator and other persons is not fully indicated in the court's opinion. The court emphasizes the difficulty of bounding the air space, the difficulty of possessing it, the difficulties there would be in enforcing a landowner's rights to it,[5] as well as the fantastic lengths to which jurisprudence would be pushed if government should undertake to extend protection in behalf of the owner to the indefinite space above his land.[6] These are all valid reasons for making the distinction, but it is believed to rest particularly on the more fundamental basis found in the types of opposing interests which come into conflict in the use of air space.

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1. See the excellent and thorough study of *Edward C. Sweeney*, "Adjusting the Conflicting Interests of Landowner and Aviator," 3 JOURNAL OF AIR LAW 329, 531 (1932); *Thurston*, "Trespass of Air Space" (1934) Harvard Legal Essays 501.

2. *Esty* v. *Baker*, 48 Me. 495 (1860); *Smith* v. *Smith*, 110 Mass. 302 (1872); *Wandsworth Board of Works* v. *United Telephone Co.*, 13 Q. B. D. 904 (1884); *Gifford* v. *Dent*, 71 Solicitors Journ. 83 (1926); *Puorto* v. *Chieppa*, 78 Conn. 401, 62 Atl. 664 (1905); *Metropolitan West Side Elevated Ry. Co.* v. *Springer*, 171 Ill. 170 (1898); *Haitsch* v. *Duffy*, 10 Del. Ch. Rep. 280 (1914); *Cumberland Telephone & Telegraph Co.* v. *Barnes*, 30 Ky. Law Rep. 1290, 101 S. W. 301 (1907); *Butler* v. *Frontier Tel. Co.*, 186 N. Y. 486, 79 N. E. 716, 11 L. R. A. (N. S.) 920 (1906); *Homewood Realty Corp.* v. *Safe Deposit & Trust Co.*, 160 Md. 457, 154 Atl. 58, 78 A. L. R. 8 (1931); *Shinors* v. *Joslin*, 56 Mont. 10, 180 Pac. 574 (1919); *Huber* v. *Stark*, 124 Wis. 359, 102 N. W. 12, 108 Am. St. Rep. 937 (1905). See note 145, *Sweeney*, *supra* note 1; and note 47, *Thurston*, *supra* note 1, for numerous other cases.

3. *Ellis* v. *Loftus Iron Co.*, L. R. 10 C. P. 10 (1874), 31 L. T. 483, 23 W. R. 246, 44 L. J. C. P. 24, 39 J. P. 88; *Herrin* v. *Sutherland*, 77 Mont. 587, 241 Pac. 328, 42 A. L. R. 937 (1925); *Whitaker* v. *Stangvick*, 100 Minn. 386, 111 N. W. 295, 10 L. R. A. (N. S.) 921 (1907); *Portsmouth Arbor Land & Hotel Co.* v. *U. S.*, 260 U. S. 327, 43 S. Ct. 135, 67 L. Ed. 287 (1922). *Cf. Clifton* v. *Bury*, 42 L. R. 8 (1887).

4. See dictum of Lord Ellenborough in *Pickering* v. *Rudd*, 4 Camp. 216, 1 Stark. 56 (1815) ("I do not think it is a trespass to interfere with the column of air superincumbent on the close. . . . Nay, if this board overhanging the plaintiff's garden be a trespass, it would follow that an aeronaut is liable to an action of trespass *quare clausum fregit* at the suit of the occupier of every field over which his balloon passes in the course of his voyage."). *Johnson* v. *Curtiss Northwest Airplane Co.*, 1928 U. S. Aviation Rep. 42 (Minn. District Court, 1923); *Commonwealth* v. *Nevin*, 1928 U. S. Aviation Rep. 39 (Pa. Quarter Sessions, 1922); *Swetland* v. *Curtiss Airports Corp.*, 41 F. (2d) 929 (N. D. Ohio, 1930), 55 F. (2d) 201 (C. C. A. 6th, 1932), 1932 U. S. Aviation Rep. 1; *Thrasher* v. *City of Atlanta*, 178 Ga. 514, 173 S. E. 817 (1934). *Cf.* dicta in *Smith* v. *New England Aircraft Co.*, 270 Mass. 511, 170 N. E. 385, 69 A. L. R. 300 (1930).

5. See opinion, at 757. "The sky has no definite location. It is that which presents itself to the eye when looking upward; as we approach it, it recedes. There can be no ownership of infinity, nor can equity prevent a supposed violation of an abstract conception."

6. See opinion, at 758. "We will not foist any such chimerical concept of property rights upon the jurisprudence of this country."

In nearly all the older cases the conflict was between competing landowners' interests, i. e., property interests. In all of them, either the possession or ownership of the surface or some incidental use of it was in some way threatened or prejudiced by the invader.[7] In contrast, the interest of a person who makes use of air space for the purpose of flying is one of personality.[8] This interest which a person has in locomotion, i. e., "going places and doing things," is one of the fundamental liberties or freedoms of human beings, whether on land or water. It has always been given the fullest recognition by society and by formal government.[9] With the advent of air navigation and its power to accelerate human activities, the freedom of the air became even more important than the freedom of the seas and may ultimately become as important as the freedom of the highway. Nor is this freedom the basis of a mere privilege which a person must justify. It is the basis of a right of equal dignity with that of the ownership of land.

Judge Haney in his opinion well states the reconciliation between this interest and the surface owner's interests. "We own so much of the space above the ground as we can occupy or make use of in connection with the enjoyment of our land. This right is not fixed. It varies with our varying needs, and is co-extensive with them. The owner of land owns as much of the space above him as he uses, but only so long as he uses it. All that lies beyond belongs to the world."[10] The landowner has no need for more; the citizen who desires to transport himself, or be transported by another, through space will accept no less. The right of flight is no more subject to prejudice by the landowner than is the landowner's right of property subject to prejudice by the right of flight. The aviator does not seek and cannot gain through his flight any property interest in the surface below.[11]

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7. *Supra* notes 2 and 3.

8. See my editorial comment, "Flight of Aircraft—Right or Privilege," 6 JOURNAL OF AIR LAW 201 (1935).

9. Constitution of the United States, Art. IV, §2: "The citizens of each state shall be entitled to all privileges and immunities of citizens in the several states."; Art. XIV (Amendments ". . . No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States . . ." *Crandall* v. *Nevada*, 73 U. S. (6 Wall.) 35 (1868); *The Passenger Cases*, 48 U. S. 287 (7 How.) 1849) (Citizens of the United States have the right to pass and repass through every part of it without interruption as freely as in their own states).

Deaths in excess of 35,000 every year, injuries mounting near the million mark, hundreds of millions of dollars invested in highways, indicate the price we are willing to pay for the automobile.

10. See opinion, at 758. This is peculiarly true under the California Civil Code. See Sec. 829; and *Sweeney*, *supra* note 1, at 359 (note 95), 569, 575. The result is practically the same under the more inclusive Georgia code (Civil Code (1910) §3617). In *Thrasher* v. *City of Atlanta*, *supra* note 4, the Georgia Supreme Court held that the literal terms of the code must be discounted or qualified. It said, "But the space is up there, and the owner of the land has the first claim upon it. If another should capture and possess it, as by erecting a high building with a fixed overhanging structure, this alone will show that the space affected is capable of being possessed; and consequently the owner of the earth beneath the overhanging structure may be entitled to ejectment or to an action for trespass. However, the pilot of an airplane does not seize and hold the space or stratum of air through which he navigates, and can not do so. He is merely a transient, and the use to which he applies the ethereal realm does not partake of the nature of occupation in the sense of dominion and ownership."

11. See opinion, at 758. Continuing, the court said: "When it is said that man owns or may own to the heavens, that merely means that no one can acquire a right to the space above him that will limit him in whatever use he can make of it as a part of his enjoyment of the land. To this extent his title to the air is paramount. No other person can acquire any title or exclusive right to any space above him." See excerpt from *Thrasher* v. *City of Atlanta*, *supra* note 10. See also *Sweeney*, *supra* note 1, at 558, *et seq.*

His interest is limited to locomotion either of himself or of the craft which he provides for others. The exercise of his right conflicts in no way with those of the owner of the surface unless it jeopardizes or prejudices the owner's use or enjoyment of the surface. The uses of land are variable, and whether in any particular case the owner's use of his surface, including the incidental uses of the space above it, has been prejudiced by air navigation is a question of fact determination.[12]

The court successfully avoided becoming entangled in the pedantries of the so-called theories which have been contended for as means of adjusting the interests of landowner and aviator.[13] The "ad coelum" formula was rejected as being a figurative phrase.[14] The "zone" and "nuisance"[15] theories, if they have enough basis to be called theories at all, were ignored. The simplicity of the court's solution of the problem gives it great strength. It is not difficult to understand. It requires no abstruse legal reasoning to support it. It imposes no arbitrary, strained, or undue burden on either party. The landowner who has been injured in the enjoyment of his premises may have his remedy by way of damages for trespass, nuisance or negligence, as the facts may warrant, and where such legal remedies are inadequate, as in cases of continued or threatened harms, he may have an injunction.[16] Equally so, if the landowner goes aside from the legitimate uses of his premises to interfere with the navigation of aircraft, he is subject to any such remedy which may be appropriate to the facts.[17]

The court's solution is preferable to the modified "trespass" theory proposed by the American Law Institute.[18] The latter proposal accepts the "ad coelum" theory of land ownership with its severe doctrine of trespass, but accords the aviator a *privilege* under certain conditions. These conditions deny the aviator the freedom of the air. They prevent such freedom from being exercised as a right. In practical effect, in any case where the landowner seeks to impose liability upon an aviator, these conditions throw upon the aviator the burden of justifying his flight. For

12. See opinion, at 758. "Whether such close proximity to appellant's land may constitute an impairment of his full enjoyment of the same is a question of fact." The burden will be upon the landowner to show that he has been hurt. There of necessity will be many close cases. One judge or one jury will deny relief where another judge will grant it. But that is true in any type of case where the final determination is left to the judgment of men, whether judges or jurors.

It may also be observed that as cases come before the courts there will be a tendency to relieve the navigator of the air from liability for anything but the more serious interferences with the use and enjoyment of a landowner's premises. There may be hundreds of inconveniences to which the landowner will be subjected without any remedy, just as in the case of the landowner who lives near a highway where traffic is heavy, or in the vicinity of one or more railways. See *Thrasher* v. *City of Atlanta, supra* note 4.

Likewise, the aviator himself will be subjected to various restrictions. He may be required to skirt heavily populated areas, maintain minimum heights of flight, provide various safety equipment, be subject to inspections and various types of licenses, and many other police regulations.

13. See *supra* note 1.

14. See opinion, at 757.

15. *Supra* note 1.

16. *Tucker* v. *United Air Lines* (Iowa District Court), 6 JOURNAL OF AIR LAW 622 (1935); *Thrasher* v. *City of Atlanta, supra* note 4; *Swetland* v. *Curtiss Airports, supra* note 4; *Smith* v. *New England Aircraft Co., supra* note 4. See *Sweeney, supra* note 1. Under the modern codes, shaping an appropriate remedy gives very little difficulty. Even when there is actual contact with the surface or a structure, a landowner would not be limited to any one remedy, as, for example, an action for trespass.

17. See *United Air Lines* v. *Tucker* (Iowa District Court), 6 JOURNAL OF AIR LAW 624 (1935).

18. §§158, 159, 194, Torts Restatement. See Professor Thurston's learned article in support of the Institute's proposal, *supra* note 1.

example, in cases like those under consideration, the flight of the defendants' aircraft so close to the surface of plaintiffs' land would be trespasses unless the defendants could show that they were flown "for the purpose of travel" or for some "other legitimate purpose, in a reasonable manner, at such a height as not to interfere unreasonably with the possessor's enjoyment of the surface of the earth and the air space above it, and in conformity with such regulations of the state and federal aeronautical authorities as are enforced in the particular state."[19]

The so-called privilege granted the aviator under the proposal seems presumptuous. If the landowner has no dominion over the air space beyond that required for the enjoyment of his surface, the traveler by air is not within his grace. The surface owner has no privilege to grant. Moreover, the immunity under the privilege is good only so long as the landowner is not hurt. It thus turns out to be an empty privilege. All risks are thrown upon the aviator. There is no area of give and take between him and the landowner in which would fall the incidental hurts of air navigation as in the case of travel by highway, railway, or waterway. Under the Institute's proposal, everything is resolved in the landowner's favor. The aviator might be mulcted in damages, or even be subjected to equitable restraint if he were unable to meet the conditions imposed, although the landowner had suffered no hurt at all. Were the Institute's formula to be accepted, the normal processes of litigation would be reversed. The burden which ordinarily is placed upon the party who claims injury and who is in the best position to show his hurt would be placed upon the aviator to absolve himself from some claim about which he would necessarily know but little. The proposal is based upon an assumption of a greater dominion by the landowner than he has. The premise being false, the adjustment proposed could only result in promoting useless litigation. In contrast, the adjustment worked out by the court would seem to be more just, more in keeping with the dignity of the respective interests, more appreciative of the tremendous development in the use of aircraft, and much more rational in administration.[20]

LEON GREEN.[21]

Jurisdiction—Sovereignty Over the Air.—[Federal] An airplane flew from Canada to Youngstown, Ohio, with a quantity of smuggled liquor. In its flight it proceeded over the Western District of New York, and parts of Pennsylvania and Ohio. The plane subsequently returned to Canada and was seized by Canadian authorities, who placed the pilot under arrest.

19. §194, and comments, Torts Restatement. This privilege is based upon "an entry above the surface of the earth *in the air space in the possession of another.*" The clause underscored renders the section so ambiguous that it is difficult to know what it means. From the commentaries it is clear that the restatement is based upon the assumption that possession of air space may extend an indefinite height above the surface. Professor Thurston's comment (*loc. cit.* 502) so indicates: "The possessor of the land possesses the air space above the land to an indefinite height. Just how far up towards the zenith it is probably not necessary to determine, since our law is a practical science and deals only with such problems as have actually arisen or may be expected to arise. *At any rate, he possesses that part of the air space through which aeronauts customarily travel.*" The Restatement as thus interpreted is irreconcilable with the cases under consideration.

20. See *Kingsley and Mangham*, "The Correlative Interests of the Landowner and the Airman," 3 JOURNAL OF AIR LAW 374, 398 (1932) for similar conclusion.

21. Dean, Northwestern University School of Law.

The plane was being transported across the bridge at Niagara Falls, New York, when it was seized by a United States customs official for the Western District of New York, and an action of forfeiture was brought. The government contended that, when the plane entered the country with smuggled goods and flew over the Western District of New York, it constituted an entry into that district, giving that court jurisdiction over the plane. Respondent insisted that the action could be brought only where the plane landed. *Held:* The court has jurisdiction inasmuch as the United States has sovereignty over the air space above its territory. *United States* v. *One Pitcairn Bi-Plane,* 11 F. Supp. 24 (W. D. N. Y. 1935).[1]

If jurisdiction does extend to airspace above territory then the conviction was proper, since the crime was committed at the moment of entry into the United States, even though it may be argued that the crime was not fully consummated until the landing of the plane in Ohio.[2] But is such an assumption of sovereignty warranted? Though several statutes have been passed concerning this problem[3] there are no prior adjudications of the problem in the United States.[4]

In determining whether the air space above its land and waters is a part of the United States, principles of international, rather than constitutional law apply. Under the treaty power, the federal government, not the states, is given the power to acquire new domain not a part of the United States at its formation. It is felt that this air domain was acquired on the principles of contiguity and necessity for defensive purposes, in the same manner as sovereignty over marginal waters is secured to nations by international law. Those who argue for "freedom of the air" feel that the air space over a nation should be part of its domain only so far as it can be effectively controlled.[5] De Visscher maintains that a concept of sovereignty should be accepted recognizing a community of interest in the airspace, "dividing airspace above the territory of a state into theoretical zones allowing liberty of aerial navigation to foreign aircraft yet insisting that the extent of the rights of the state within its 'zone propre' be not prejudiced."[6]

Hyde has grouped the different views on the subject of air control into those who maintain that airspace is of its nature free, and those who maintain the theory of the sovereignty of the subjacent state in airspace above its territory.[7] He further subdivides these classes into those who favor freedom without restriction, freedom restricted by special rights, and freedom restricted by territorial zone; full sovereignty without restriction. full

1. 7 JOURNAL OF AIR LAW 290 (1936).
2. 42 Stat. 979 (1922), 19 U. S. C. A. §§481, 482 (1927). See *Cook,* "The Logical and Legal Bases of the Conflict of Laws," 33 Yale L. J. 457, 464 (1924).
3. Among these are the Uniform State Laws on Aviation and §6 (a) of the Act of May 20, 1926, familiarly known as the Air Commerce Act of 1926, 44 Stat. 572 (1926), 49 U. S. C. A. §176 (1935).
4. See *Butler* v. *Frontier Telephone Co.,* 186 N. Y. 486, 79 N. E. 716 (1906). Section 7 of the Uniform State Law for Aeronautics provides that "All crimes, torts, and other wrongs committed by or against an aeronaut or passenger while in flight over this State shall be governed by the laws of this State."
5. *Blewett Lee,* "Freedom of the Air in the United States," 25 Am. J. Int. L. 238 (1931).
6. *Fernand de Visscher,* "Le régime juridique de l'espace atmosphérique et la question de la nationalité des aéronefs," 2 Zeitschrift für das Gesamte Luftrecht 4-25 (1928).
7. *Hyde,* International Law as Interpreted and Applied by the United States (1922) 324-325.

sovereignty restricted by right of innocent passage for aerial navigation, and full sovereignty up to a limited height only.

The agitation for freedom of the air went on apace prior to 1914; but the War changed all the ideas of the continental countries, while England, because of her position and vulnerability, had always been of the opinion that full sovereignty was necessary. These nations finally settled the question between themselves in 1919 by the adoption of conventions for the regulation of aerial navigation, wherein the "complete and exclusive sovereignty over the air space above its territory" was recognized as being in each nation which became a party to the convention.[8] They all agreed, however, to give rights of innocent passage for aerial navigation. The United States was not a signatory to these conventions but adopted a theory of full sovereignty in the Air Commerce Act of 1926.[9] This act did not accord any right to engage in commerce within its air domain to any foreign ships, although allowing them other rights of air passage under certain conditions. Our theory of complete and exclusive sovereignty was further fortified and given some degree of international recognition by the ratification in 1931 of the Habana Convention of 1928.[10] The Convention was ratified by six other Central American states between 1929 and 1932 and grants to the signatories, as between themselves, recognition of each other's sovereignty. Freedom of innocent passage was accorded each contracting state; however, the rest of the provisions of the Convention make this privilege of little value, as it is so hedged about with reservations. In fact, each party has reserved the right to restrict the transportation of articles in international navigation under circumstances which it appears could easily be supplied.[11]

It is thus seen that the view that each nation has rights of sovereignty over its airspace is well established by practice and fully capable of substantiation on principles of international law;[12] so that the federal court was correct in assuming jurisdiction.[13].

JOHN HENRY PECKHAM, JR.[14]

DIGESTS

Trespass—Nuisance—Alleged Violation of Air Commerce Regulations.—[Federal] In an action for infringement of copyrighted photograph of defendant's hotel, taken from an airplane, defendant contended that the plaintiff's flights over defendant's health resort constituted a violation of Air Commerce Regulations prescribing a minimum altitude of flight over congested settlements, that the flights were reckless, deliberate and highly dangerous, were made without defendant's consent and constituted a trespass, because of which the photograph obtained by plaintiff was taken illegally and the alleged copyright should be declared invalid and should be cancelled and revoked. *Held:* decree for plaintiff. The defendant's property was not in a

8. *Fagg*, "International Air Navigation Conventions and Commercial Air Navigation Treaties," 2 S. Calif. L. R. 430, 433 (1929).
9. Act of May 20, 1926, 44 Stat. 572 (1926), 49 U. S. C. A. §176 (1935).
10. 1932 U. S. Av. Rep. 298-309.
11. Art. XVII: "As a measure of public safety or because of lawful prohibitions . . ."
12. Legislative History of the Air Commerce Act of 1926, 104, 119. This is a very valuable collection of data on the subject.
13. On the division of sovereignty between state and federal governments, see Comment, 7 JOURNAL OF AIR LAW 275 (1936).
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congested area within the meaning of the Air Commerce Regulations. The height at which an airplane operator may pass above the surface without trespassing is a question depending for solution on the facts in the particular case, and this question is unaffected by the regulations promulgated by the Department of Commerce. Plaintiff had the right of flight over the property of defendant without its consent for the purpose of traveling through the airspace or for other legitimate purposes provided, (1) he did so in a reasonable manner; and (2) it was at such a height as not to interfere unreasonably with the possessor's use and enjoyment of his property; (3) he complied with federal and state air traffic regulations. The operation of the plane in the particular case, if unauthorized, would unreasonably interfere with the enjoyment and use of defendant's property as a health resort. However, since the flight was authorized, it was unnecessary to decide whether an unauthorized flight over property for the sole purpose of securing a picture of the owner's property for commercial purposes is legitimate. *Cory* v. *Physical Culture Hotel,* 14 F. Supp. 977 (D. C. W. D. N. Y., April 22, 1936).